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Editorial Statement

Human Behavior, Development and Society is a refereed multidisciplinary journal that explores a wide range of scholarly topics, especially in fields relating to the humanities and social sciences. It is published online three times a year and is available free of charge through the ThaiJo and Asia-Pacific International University (AIU) websites, with a limited number of hard copies available. The journal, originally entitled *Catalyst*, has been published since 2006 by Asia-Pacific International University, Muak Lek, Thailand, through its publishing arm *Institute Press*.

The journal has the following objectives:

a). To stimulate the creation and synthesis of beneficial information, as well as its broad dissemination, especially in the varied fields of the humanities and social sciences,

b). To foster a deeper understanding regarding the impact of business policies and practices on society, and

c). To promote the adoption of best practices in communities through education, and to aid in the resolution of community issues for the betterment of society; this represents the development aspect referred to in its name.

Editorial Objectives

The editorial objectives are to advance knowledge through use of classical–or the creation of innovative–methods of investigation, and to foster the examination of cross-cultural issues to increase mutual understandings among diverse social groups. Encouraging cooperative studies and scholarly exchange across borders is a key aim, especially when these may have practical applications within the Southeast Asian region. The application of theoretical considerations to organizations, fields, and communities is also an outcome that is sought.

Journal Positioning
The journal is broadly based and has the potential to impact thinking and practices across a range of subject areas, dealing with substantive issues that arise in both developing and developed countries. It will likely appeal to readers with a broad appreciation of the social issues facing organizations, communities, and governments operating under varied challenges and constraints. Its contents are meant to appeal to both the academic community and practitioners in numerous areas of interest.

The positioning of the journal means that a variety of topics is covered in most issues. These, in turn, differ in their philosophical content, academic appeal, and practical implications.

Appropriate Content
The journal covers a broad spectrum of topics. These include, but are not limited to, anthropology, allied health focused on community issues and health education, education from the primary to the tertiary levels, literature, language use and acquisition, business, management, finance, geography, psychology, social sciences, philosophy, and theology. Review essays and seminar/forum papers are also accepted when appropriately focused. Well-executed studies that address interesting and significant topics in the areas mentioned above are particularly welcomed. All articles accepted should make significant contributions to understanding and add to the corpus of knowledge in their respective fields.

The following constitutes a partial list of topics that are considered potentially suitable for publication:

1. Applied linguistic or linguistic studies that examine issues related to communication, language pedagogy and use, as well as theories and meaning of language.
2. Religious or biblical studies that explore historical, philosophical, sociological, as well as hermeneutical issues.
3. Anthropological or ethnographic studies which seek to reflect cultural nuances of communities for a better understanding of the society.
4. Cultural/intercultural issues and diversity, including how tensions involving these parameters might be handled to achieve social justice and acceptance.
5. Review articles or studies in the fields of marketing, business, stock market trading, and auditing practices, and their significance to the business and broader community.
6. Organizational behavior, resilience, and the creation of a positive psychological work environment and job satisfaction.
7. Teaching strategies, interventions, assessment, and other issues to the betterment of society.
8. Policies and political movements, and their impact on educational development.
9. Violence, discrimination, and marginalization: how these issues are viewed in contemporary society, and the factors contributing to their emergence.
10. Social trends in addictive behavior; how to address such issues creatively.
11. Impact of specific policies and interventions on health care, including how to promote positive health outcomes in communities.
12. Innovative and cost-effective approaches to health care and education in poor, rural communities.

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From the Editor

Human Behavior, Development and Society (HBDS) is an international, open-access, interdisciplinary peer-reviewed journal published three issues a year by Asia-Pacific International University (AIU). *HBDS* publishes findings and discussions regarding most aspects of human behavior, development, and society. The journal's scope is to advance knowledge through the use of classical methods of investigation and to foster the examination of cross-cultural issues that increase mutual understanding among diverse social groups within the international community, with a particular emphasis on Southeast Asia. All articles in the journal are indexed with the Thai-Journal Citation Index Centre (TCI), ASEAN Citation Index (ACI), and with the EBSCO database.

This issue of HBDS is the second issue of 2023. It contains 10 articles, six of which were written by researchers external to the university, and four that were authored by AIU researchers. We are delighted to see reports and findings from various disciplines including business, education, health, and religious studies. The articles in this issue reflect studies conducted in Asian contexts including Malaysia, the Philippines, and Thailand; there is also one article from the United Arab Emirates. We hope that this issue of HBDS will contribute to the development of society and serve as a source of information for various academic fields and research projects.

We would like to invite readers to publish your valuable papers with us. More information may be found on our website, *https://www.tci-thaijo.org/index.php/hbds*. We would also appreciate comments or suggestions from you to help us improve the journal. Finally, we appreciate the hard work of authors, reviewers, editorial board members, executive board members, and journal staff members who have contributed to making this achievement a reality.

Assistant Professor Dr. Damrong Satayavaksakoon, Editor

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Publications of Asia-Pacific International University From 2017 to 2022 in International Conference Proceedings, TCI, and SCOPUS Databases

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Abstract

This study analyzed faculty publications from Asia-Pacific International University (AIU) that were published in international conference proceedings, Thai-Journal Citation Index (TCI) Centre, and SCOPUS databases over the past five years. From 2017 to 2022, 259 research articles were published by AIU instructors from various academic disciplines. The number of publications fluctuated from year to year and did not show steady growth. Out of 259 articles, the highest number of publications was in TCI journals (46%), followed by conference proceedings (33.2%). The findings further revealed that research articles published in the SCOPUS database had the highest number of citations (64.4%). The largest contribution to articles published in SCOPUS came from the Faculty of Science, accounting for 50%. On average, each article published in SCOPUS received 10.4 citations while an article published in the TCI database had only one citation per article. Thus, an article published in the SCOPUS database had 10 times higher citations than an article published in the other databases. Some implications for AIU instructors' publication trends were discussed briefly.

Keywords: *Asia-Pacific International University, publications, conferences, quality journals*

Introduction

Asia-Pacific International University (AIU) is a Seventh-day Adventist institution of higher education located in Muaklek District, Saraburi Province in central Thailand. The university was formerly a small college representing a union of three institutions, namely Southeast Asia Union College, Bangkok Sanitarium and Hospital School of Nursing, and Mission College (Maidom, 2020). Currently, AIU has 976 undergraduate and graduate students in seven different faculties. The ratio of teaching staff to students is 1:9 (Asia Pacific International University, 2022). The university is categorized under Group B: Institutions emphasizing producing graduates at the bachelor degree level (Office of the Higher Education Commission, 2017; ONESQA, 2013). Every academic year between August to September, an internal quality assurance audit requires every program of studies and faculty to disseminate self-assessment reports for educational quality. Publication scores are a key component in measuring the contribution of full-time instructors to developing the body of knowledge in their fields of expertise (Office of the Higher Education Commission, 2017). Full-time instructors are encouraged to publish their academic output in journals listed in the TCI or SCOPUS databases; however, less experienced teachers are free to start with national/international conference proceedings. Therefore, publications are a vital indicator in academic settings of instructor productivity and the quality of education (Aksnes et al., 2019). A paper published in a high-impact journal indexed in Elsevier's SCOPUS or the Web of Science, also known as Institute of Scientific Information or ISI, is perceived as the key performance index that affects institutional rankings (Sirisathitkul & Sirisathitkul, 2014). In this study, the aim was to investigate the publications of AIU responsible program instructors over the past five years to provide information to supports strategic plans for developing dissemination of research output.

Literature Review

Academic Conference Proceedings

Academic conferences play a vital role in providing a platform for both experienced and novice researchers from various fields of expertise to disseminate their knowledge and publish their research results (Meho, 2019). Conference proceedings typically consist of manuscripts presented by the researchers who attended the conference. In many fields, conference proceedings are published as supplements to academic journals and distributed in print or electronic form after the conference ends (Kochetkov et al., 2021). Decisions to select manuscripts for wider circulation are made by the conference organizing committees (Kochetkov et al., 2021). Conference proceedings are normally disseminated by the organizing or co-organizing institutions. For example, the International Scholars' Conference (ISC) was jointly established by four Adventist institutions in Southeast Asia, including Asia-Pacific International University, Adventist University of the Philippines, Universitas Advent Indonesia, and Universitas Klabat. The ISC is hosted annually on a rotating basis by the four institutions, and welcomes experienced and novice researchers from the four partner institutions and other universities.

Thai-Journal Citation Index (TCI)

The TCI Centre was established to assess citation impact factors for Thai academic journals, and was initially sponsored by King Mongkut's University of Technology Thonburi in 2001 (Thai-Journal Citation Index Centre, n.d.). TCI's main objectives are to develop and maintain the TCI database system, tabulate and provide an annual report on Thai journal impact factors, disseminate research output and raise its quality to that of international standards, and establish international collaboration on research and journal quality improvement (Thai-Journal Citation Index Centre, n.d.). In 2012, the TCI database housed only 480 journal titles (Sombatsompop et al., 2012). Currently, TCI includes 1,194 on the Thai Journals Online (ThaiJO) platform, with over 239,000 articles in its e-journal database system ranging in all fields of study, including science, technology, humanities, and social sciences (ThaiJO, 2023). TCI received funding from Thailand Science Research and Innovation to develop the quality of Thai journals indexed in the SCOPUS database as part of a project entitled "System Development and Improvement of Thai Journal Quality in the Scopus Database" (Thai Journal of Obstetrics and Gynaecology, n.d.). As a result of this effort, 46 titles of Thai journals are in TCI-TSRI-Scopus Collaboration Project Phase 2 (Thai Journal Citation Index Centre, 2021). Through continued collaborative efforts, more titles of Thai journals are expected to be accepted for indexing in the SCOPUS database in the future.

Elsevier's SCOPUS

SCOPUS was launched in 2004 by Elsevier, an academic publishing company based in Amsterdam, the Netherlands, and it has grown quickly, becoming the largest index and citation database in the world (Quvae, 2023). Manuscripts indexed in the SCOPUS database must be peer-reviewed for quality and authenticity by the journals in which they are published (SCOPUS, 2023). SCOPUS assesses journals on an ongoing basis to verify that their quality is well maintained. As part of the evaluation or re-evaluation process, concerns may be raised whether to continue or discontinue a journal's indexation (Krauskopf, 2018). SCOPUS helps to combat predatory journals or untrustworthy journals that prioritize self-interest at the expense of scholarship; by publishing misleading information, such journals threaten the integrity of the academic publishing industry (Frandsen, 2022; Hayden et al., 2021). In 2021, over 41,000 titles of academic journals covering 240 disciplines were indexed in the SCOPUS database (SCOPUS, 2023). As one of the largest academic databases that contains scholarly literature from almost every discipline, with over a quarter of a billion articles and book chapters, SCOPUS is hailed as a "global" database of knowledge widely used for bibliographic research and academic assessment (Tennant, 2020). SCOPUS also provides academic journal rankings, author profiles, and an h-index calculator–a metric used to measure a researcher's research output and impact, calculated based on the number of publications and the number of times those publications have been cited by other researchers (Paperpile LLC, 2023; Phoocharoensil, 2022), which are significant indicators for Quacquarelli Symonds world university rankings (Horta & Santos, 2016; Vernon et al., 2018).

During 2007–2014, Sirisathitkul and Sirisathitkul (2014) analyzed the research contributions of teachers from Walailak University, Thailand, in SCOPUS, ISI, and TCI databases. They found that through national and international research collaboration, the number of international research publications increased remarkably, and most publications had multiple authors. In the current study, the aim was to investigate the research contributions of AIU, a small private international university with a student population of less than 1,000. This study was guided by the following research questions:

1. How many research articles were published by AIU instructors from 2017 to 2022?
2. Where were these articles published?
3. What was the impact of various types of publications?

Materials and Method

Research Instrument and Data Collection

To investigate the number of publications, the researchers counted research and academic articles reported in self-assessment reports provided by the university's Quality Assurance Office over the past five years, from 2017 to 2022. The number of research and academic articles published in ISC and other conference proceedings, TCI Tier 1 and TCI Tier 2 journals, and the SCOPUS database were tabulated. The number of instructors from each faculty of the academic year was also used to calculate the ratio of publications per instructor. The total number of publications and ratio of publications per instructor from each faculty are summarized in Table 1.

Table 1 *Total Number of Publications and Ratio of Publications Per Instructor From Each Faculty*

Faculty	2017–2018		2018–2019		2019–2020		2020–2021		2021–2022		Total	Publications/
	RA	INS	RA	INS	RA	INS	RA	INS	RA	INS	RA	INS
FAH	10	18	9	16	6	16	2	17	7	17	34	0.4
FBA	18	25.5	16	23	11	23	12	22	17	21	74	0.6
FEP	3	11	9	9	15	11	4	9	13	10	44	0.9
FIT	-	-	4	5	1	5	2	5	2	5.5	9	0.4
FNS	10	33	10	31	7	29	8	23	7	23.5	42	0.3
FRS	3	12.5	2	7	8	7	8	7	7	7	28	0.7
FSC	6	8	6	8	7	8	5	10	4	11	28	0.6
TOTAL	50		56		55		41		57		259	

Note. FAH = Faculty of Arts and Humanities; FBA = Faculty of Business Administration; FEP = Faculty of Education; FIT = Faculty of Information Technology (established in 2018); FNS = Mission Faculty of Nursing; FRS = Faculty of Religious Studies; Faculty of Science; RA = Research and Academic Articles; INS = Instructor.

Data Analysis

The researchers examined the authorship of each article and categorized it into single authorship or multiple authors. The number of citations of all the research and academic articles, including conference proceedings published by instructors from AIU during 2017–2022, were traced in Google Scholar, TCI, and SCOPUS databases.

Findings

To respond to Research Question 1 concerning the number of research articles published by AIU instructors, it was found that from 2017 to 2022, 259 research and academic articles were published by AIU instructors. The instructors from the Faculty of Business Administration (FBA) produced the highest number, which made up 28.6% of the total, followed by 17% by the Faculty of Education (FEP), and 16.2% by the Faculty of Nursing (FNS). The instructors from the Faculty of Information Technology (FIT) published the fewest articles (3.5%). However, it is worth noting that FIT was only established in 2018, and so the FIT had no publications during the 2017–2018 academic year. Table 2 displays the number of publications, percentages contributed by different faculties, and the ratio of publications per instructor.

Table 2 *Number of Publications, Percentages by Faculties, and Ratio of Publications Per Instructor*

Faculty	No. of Publications	Percentage	Ratio of Publications Per Instructor
FAH	34	13.1	0.4
FBA	74	28.6	0.6
FEP	44	17.0	0.9
FIT	9	3.5	0.4
FNS	42	16.2	0.3
FSC	28	10.8	0.6
FRS	28	10.8	0.7
Total	259	100.0	0.6

As seen from Table 2, instructors from FEP tended to produce slightly more publications compared to instructors from other faculties when the ratio of full-time instructors per research article was calculated. This implies that, on average, each instructor from FEP had 0.9 papers per academic year. The second highest ratio of publication per instructor was from FRS, which published an average of 0.7 papers per instructor per academic year. This was calculated based on the number of full-time instructors teaching in each academic year.

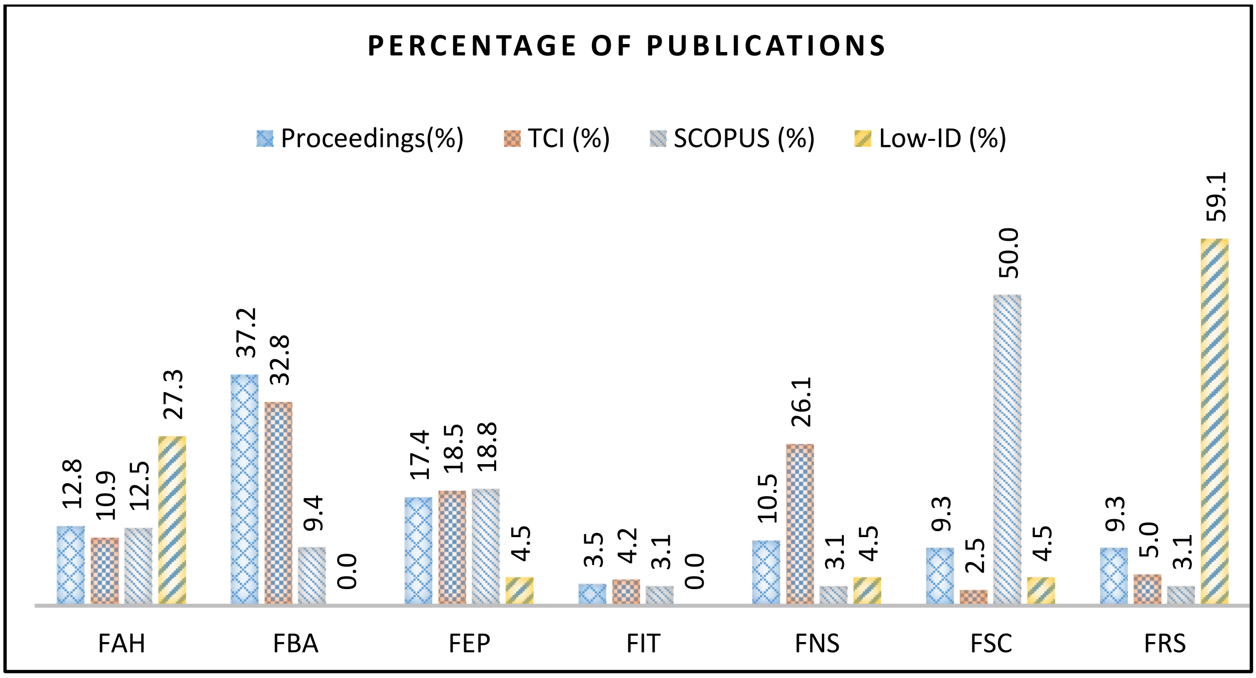
To address Research Question 2 regarding the venues used by AIU instructors, it was found that of the 259 articles, 86 of them were published in conference proceedings, 65 in TCI Tier 1 journals, 54 in TCI Tier 2 journals, 32 in SCOPUS, and 22 papers were published in low-impact journals. The number of publications fluctuated from year to year and did not show steady growth. It was found that 190, or 73.4% of the research articles had multiple authors, whereas 69 papers, or 26.6% were published by single authors. The number of publications in different databases is summarized in Table 3.

Table 3 *Number of Publications of AIU Instructors in Proceedings, TCI, SCOPUS, and Low-impact Databases*

Faculty	Conference Proceedings	TCI Journals Tier 1	TCI Journals Tier 2	SCOPUS Journals	Low Impact Publications	Total
FAH	11	9	4	4	6	34
FBA	32	18	21	3	0	74
FEP	15	10	12	6	1	44
FIT	3	3	2	1	0	9
FNS	9	22	9	1	1	42
FSC	8	1	2	16	1	28
FRS	8	2	4	1	13	28
Total	86	65	54	32	22	259

As shown in Table 3, the largest group of publications produced by AIU instructors was in TCI journals (46%), followed by conference proceedings (33.2%). The instructors from the Faculty of Business Administration produced the highest number, which made up 28.6%. However, those publications were mostly in conference proceedings. Instructors from the Faculty of Science published the highest number of articles in the SCOPUS database (50%), followed by the Faculty of Education and Psychology (18.8%), and the Faculty of Arts and Humanities (12.5%). The percentage of publications produced by different faculties is shown in Figure 1.

Figure 1 *Percentage of Publications Produced by Different Faculties*



From 2017 to 2022, most AIU instructors were found to co-author research and academic articles with colleagues from the faculty and from outside institutions, which accounted for 72.6% of publications, whereas 27.4% of the articles had single authors. This suggests that collaboration and teamwork are common practices among AIU instructors, which can have some implications. For example, collaborative research can lead to more diverse perspectives, innovative ideas, and improved research quality. Additionally, the high proportion of co-authored articles may indicate a strong research culture and networking opportunities within and outside the institution. The publications produced by AIU instructors were classified in terms of authorship and number of citations, as illustrated in Table 4.

Table 4 *Publications of AIU Instructors Analyzed According to Authorship and Number of Citations*

Faculty	Total Publications	Single Author	Multiple Authors	Total Citations
FAH	34	7	27	105
FBA	74	22	52	94
FEP	44	12	32	146
FIT	9	2	7	3
FNS	42	8	34	7
FSC	28	5	23	149
FRS	28	15	13	15
Total	259	71	188	519

Note. The number of citations was retrieved on February 21, 2023.

To address Research Question 3 concerning the type of publications with a good impact, it was found that the research and academic articles published by the instructors from FSC received the highest citations (149 citations or 28.7%) over the past five years, followed by articles published by the instructors from FEP (146 citations or 28.1%), and FAH (105 citations or 20.2%). The impact of research articles can be measured through the substantial rise in citations by other researchers in a similar field. The top five research articles that received the highest citations were "Comparative heterochromatin profiling reveals conserved and unique epigenome signatures linked to adaptation and development of malaria parasites" published in *Cell Host Microbe*, 2018, with 89 citations, "Factors that explain academic dishonesty among university students in Thailand" published in *Ethics & Behavior*, 2017, with 62 citations, "Reading habits and their influence on academic achievement among students at Asia-Pacific International University, published in *Proceedings of International Scholars Conference*, 2019, with 33 citations, "The effects of cash conversion cycle on profitability: An insight into the agriculture and food industries in Thailand" published in *Asian Journal of Business and Accounting*, 2018, with 31 citations, and "We need to start thinking about promoting the demand, uptake, and equitable distribution of COVID-19 vaccine NOW!" published in *Public Health in Practice*, 2020, with 19 citations. The first two, fourth, and fifth articles were published in the SCOPUS database, while the third article was in the international conference proceedings.

The articles with their associated number of citations were retrieved from Google Scholar, SCOPUS, and TCI databases and the details are shown in Table 5.

Table 5 *Frequency of Citations and Indexing Databases*

Indexing Databases	No. of Publications	Frequency of Citations	Percentage
Proceedings	86	60	11.6
TCI	119	115	22.2
SCOPUS	32	334	64.4
Low-impact Databases	22	10	1.9

As seen in Table 5, 32 research articles published in the SCOPUS database received the highest number of citations (334 citations or 64.4%) compared to a far greater number of articles published in TCI or proceedings but with a lower number of citations. On average, one article published in the SCOPUS database received 10.43 citations, while an article published in the TCI databaseor in conference proceedings received only 1.43 citations per article. In other words, an article in the SCOPUS database received 10 times more citations than articles published in the other databases. Thus, the type of publications with a high impact were the ones published in the SCOPUS database.

Discussion

This study revealed that 259 research and academic articles were published by AIU instructors from 2017 to 2022. The instructors from FBA produced the largest number of research articles; however, instructors from FEP had the highest ratio of publications per full-time instructor. In other words, instructors from FEP were the most active contributors to publications. One explanation for this occurrence might be because the FBA offers a Master of Business Administration degree and the FEP operates a Master of Education program (Asia-Pacific International University, 2022). Graduate students in the master's degree programs are required to publish their research findings in conference proceedings or a peer-reviewed journal to fulfill graduation requirements (OHEC, 2017).

The other five faculties deliver undergraduate programs where each full-time teaching instructor is required to publish a minimum of one research article during a five-year period (ONESQA, 2013). Some instructors may only meet bare minimum requirements due to inadequate training from their alma mater, limited personal interest, or insufficient commitment to research, which results in a low number of publications. Based on the internal quality assurance criterion, a low number of publications or academic output reflects the quality of study programs when viewed by stakeholders in the education sector (Sattayawaksakul et al., 2013). As reported in Table 2, the overall ratio of publication per AIU instructor (0.6 per year) was slightly low. The findings showed that the number of publications from 2017 to 2022 fluctuated from year to year, and showed no constant growth. The academic administrators and deans need to urge teaching instructors under their supervision to actively engage in research activities; perhaps a remuneration package should be established as a motivational tool to increase publications. As defined by OHEC (2017), full-time tertiary instructors need to develop their academic potential by regularly adding to the body of knowledge in their areas of expertise through participation in research and dissemination of their findings to benefit the academic sector and improve national competitiveness. If a research culture is not mandated, university instructors may not be motivated to publish nationally and internationally, and a small and self-funded university may not be competitive in the international arena, for its recognition is limited in international ranking systems (Crocco, 2018).

Regarding publication venues, the instructors published their academic outputs in four different platforms: International conference proceedings, TCI journals, SCOPUS journals, and low-impact databases. The study showed that most research and academic articles were published in the TCI database, which accounted for nearly half of all publications, followed by international conference proceedings, which contributed to one-third, and SCOPUS, which made a small portion of one-tenth. Most instructors published their research in national journals to increase the quality of dissemination of research findings in their countries (Thai-Journal Citation Index Center, n.d.). Furthermore, national journals indexed in the TCI database are varied and cover many academic disciplines (ThaiJO, 2023). Many TCI journals welcome manuscripts in the Thai language, which helps improve scholarly communication among Thai scholars from various disciplines (Thai-Journal Citation Index Center, n.d.). As reported in Figure 1, the instructors from FBA and FNS published the highest number of articles in TCI, for most full-time instructors from these two faculties are Thai. Interestingly, FSC, which had the third lowest number of full-time instructors (as shown in Table 1, an average of nine instructors per academic year) after FIT and FRS, published the largest number of articles in SCOPUS (50%) followed by instructors from FEP (almost one-fifth). One plausible explanation for this phenomenon was that FSC had experienced instructors with broad-based skills in publishing in high-impact journals. This evidence is reflected by the university self-assessment reports, which follow the criteria defined by the OHEC (2017) and ONESQA (2013) manuals.

Another indicator that contributes to such findings was the ratio of full-time science instructors with doctoral degrees. This was higher compared to instructors in other faculties, as shown in the university academic bulletin (Maidom, 2020). Horta and Santos (2016) claimed that instructors who published while completing their Ph.D. studies were found to have more productive academic careers compared to those who did not publish during their Ph.D. studies, or those with a lower level of university degrees. Thus, the academic degree hierarchy is perceived to be the pinnacle of educational achievement, which leads to greater academic output and visibility in the long run (Jairam & Kahl, 2012). On the contrary, instructors from FRS published nearly half (46.4%) of all their research in journals indexed in low-impact databases over the past five years. This might be because manuscripts discussing religious dogmas are produced in response to local needs or address issues related to biblical principles and applications for the congregational members. Journals that publish such articles may be underrepresented in the databases considered in this review. However, further investigation by engaging in interviews with FRS instructors is needed for a more comprehensive understanding of such findings.

Concerning the type of publication with good impact, the findings revealed that research articles published in the SCOPUS database produced a positive impact as evidenced by the number of citations. It was found that, on average, one article published in the SCOPUS database received 10 times morecitations than articles published in the TCI database or conference proceedings. Interestingly, four out of five top articles that received the highest citations were published in the SCOPUS database. These findings are congruent with data presented by Sirisathitkul and Sirisathitkul's (2015), who reported that a publication in SCOPUS or ISI had a greater impact factor than an article published in a less popular database, including TCI. In a similar vein, Phoocharoensil (2022) claimed that researchers or scholars today are likely to invest efforts and strive to publish their manuscripts in SCOPUS-indexed journals for recognition, broader visibility, and career development. Several universities in Thailand, particularly the national research universities that offer graduate degree programs, require graduate students to publish their articles in SCOPUS-indexed journals before graduation. This could help improve the university's reputation, as citations in high-impact journals play a significant role in the global university ranking system. Ebrahim (2015) posited that as higher education institutions are competing in the world of academia, publications and citations become significant indicators to gauge institutional achievement in the global arena in terms of global and regional research contributions. Additionally, Vernon et al. (2018) found in a systematic review of university ranking systems that research performance measures and citations are the most weighted indicators that influence the ranking system. Thus, publications in a well-known database, such as SCOPUS, can have a positive influence on academic reputation.

Conclusions and Implications

In conclusion, this study investigated the publications of AIU instructors from 2017 to 2022. The findings showed that during the five years, 259 publications were produced by AIU instructors from seven academic disciplines. The findings revealed that the number of research articles showed no steady growth. Most articles were published in national journals indexed in the TCI database, followed by conference proceedings. A small portion of the articles were published in SCOPUS and in low-impact databases. Nearly three-fourths of these publications had multiple authors. Instructors from FBA had the highest number of publications and published their articles in conference proceedings and the TCI database. However, when calculating the ratio of full-time instructors per publication, instructors from FEP were found to be more productive in research activities. Instructors from FSC had the highest number of publications in the SCOPUS database despite a small number of full-time instructors compared to other faculties. The articles published in SCOPUS-indexed journals, although limited in number, yield a more positive impact, as evidenced by a higher number of citations.

These findings provide some implications for academic administrators and faculty deans who oversee academic standards and the quality of study programs. The academic administrators and deans should encourage instructors under their supervision to take part in research studies and make attainable plans for research and publication to improve the institution's academic reputation. These instructors can access sources of information and networks of professional support when engaging in research activities in their areas of expertise that would assist them in resolving particular problems arising in their classrooms more effectively. The results obtained from the present study may help university administrators, the research office, and the internal quality assurance office to establish research strategies and operational plans to promote a research culture among university instructors to increase their research output and establish collaborative agreements with partner institutions or Seventh-day Adventist institutions across the globe. In addition, the findings may also inform the teaching instructors about their research performance and contributions when the ratio of published articles per instructor per year is compared to the performance of other instructors within and outside the university. Self-appraisal helps instructors to know their accomplishments or shortcomings, in that they can find opportunities for improvement to optimize their full potential.

Future research initiatives could focus on the reasons behind the lack of steady growth in the number of research articles published by AIU instructors. This could include exploring potential barriers to research and publication, such as lack of funding support, or incompetent research skills, as well as examining potential strategies for increasing research output, such as providing incentives or resources to faculty members. Examining the impact of publications in different databases on academic reputation and recognition could be another area for future research. For example, further investigation could be done to explore the differences in citation impact between articles published in national journals indexed in the TCI database versus those published in SCOPUS-indexed journals, as well as exploring potential strategies for increasing publication in higher-impact databases.

Limitation

The current analysis focused on the number of citations as a metric for measuring the impact of publication. We did not include an evaluation of the quality of the papers published. Evaluating the quality of papers published is an essential aspect that should be considered in future studies. Including an evaluation of the quality of the papers published in future studies could provide a more comprehensive understanding of the impact of a publication and its overall significance to the field.

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Daily Parenting Hassles of Filipino Teachers

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Abstract

Parenting is a challenging task, especially when parents also work as teachers. In this study, daily hassles experienced by Filipino teacher-parents were studied, particularly during the COVID-19 pandemic. The Parenting Daily Hassles Scale was used to gather responses (N = 371) from teacher-parents serving as the primary caregiver of their children under age 14. Data analysis indicated that most teacher-parents experienced parenting hassles at an Average level, with varied intensity or impact. The behavioral challenges experienced also occurred with Average frequency. The findings of this study have significant implications for the parental landscape in the Philippines, and provide promising directions for future research on the role portrayal of control and discipline in improving child behavior. To address the concerns highlighted in the study, the researchers recommended further examination and research on support strategies to manage children's behavior for Filipino teacher-parents amidst their professional responsibilities. This could help in the development of effective interventions and support programs that may assist parents in fulfilling their roles while dealing with daily parenting challenges. The findings highlighted the need to recognize parenting hassles and challenges, particularly during a pandemic, and the importance of supporting parents in their efforts to raise healthy and well-adjusted children.

Keywords: *Filipino, teacher-parents, daily hassles, parenting, children*

Introduction

Parents play a vital role in shaping the lives of their children by providing them with guidance, protection, and nurturing. They are responsible for creating a safe and healthy environment that allows their children to develop and grow into productive members of society. Lomanowska et al. (2015) suggested that parenting practices are influenced by the experiences and upbringing of parents themselves. Therefore, parents' behavior and practices are influenced by their own childhood experiences, and this influences their parenting styles. Moreover, Danford et al. (2015) suggested that parenting practices also are shaped by internal and external family landscapes, including cultural and societal factors. These factors impact the ways that parents raise their children, and influence the values and desirable attitudes that are instilled in their children. Therefore, parents impart social and cultural values and attitudes to their children from an early age. In addition to values and attitudes, parents also play a crucial role in shaping their children's perceptions of material things. Richins and Chaplin (2015) described material parenting as a style of parenting that promotes constructive ideas about the role of possessions in self-enhancement and improvement. By fostering positive perceptions of material things, parents can teach their children the importance of financial responsibility and the value of money.

The quality of interaction between parents and children plays a vital role in their developmental stages. Moore et al. (2017) suggested that the quality of parent-child interaction was linked with the occurrence of obesity in children. Active parental involvement in school also yielded positive gains in terms of academic achievement, as suggested by Benner et al. (2016). Therefore, the ways in which parents portray their roles as mothers or fathers is a window of opportunity to demonstrate love, discipline, control, and warmth towards their children. Sarwar (2016) found that a parent's care, time, and attention can contribute to addressing children's problematic actions. Parental involvement in a child's life is essential for positive development, and when parents are supportive and involved, they

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can help their children overcome challenges and achieve their goals. Sarwar (2016) also highlighted that parents' role-modeling was crucial in shaping their children's behavior and attitudes.

The development of a nurturing family environment is largely influenced by effective parenting processes (Bibi et al., 2013). However, it also can involve conflicting perspectives and practices regarding effective child-rearing and upbringing. Simelane (2020) found that gender played a significant role in defining parenting roles. While the ultimate goal is to ensure that children possess desirable traits and characteristics, the process of raising children is complex and influenced by various social and cultural perspectives, including the COVID-19 pandemic. The pandemic exacerbated the challenges faced by parents who were required to perform multiple roles at home and work. As a result, parents struggled with conflicting demands and responsibilities, leading to stress and conflict. These challenges were especially evident in low-income households, where parents have limited resources and face additional stressors (Coyne et al., 2021). Therefore, parenting practices and family environments may be impacted by various stressors and external factors.

The experience of stress is a constant element in the parenting equation. With multiple roles and demands, parents face overwhelming stress that can lead to various challenges. BeLue et al. (2015) found that parental stress influenced parenting practices and familial aspects more than work-related or financial stress. Thus, acknowledging the impact of parental stress on family dynamics and overall well-being is important. In the case of second-time mothers, Zhuo and Li (2021) emphasized the need to focus on family struggles, particularly the mental well-being of mothers, when adding a new family member. The transition to parenthood can be stressful, especially for mothers, and the addition of a second child can further compound the stress. Moreover, parental stress can be influenced by various factors, including personal factors, child factors, and environmental factors (Deater-Deckard et al., 2016). For instance, parents who have difficulty managing their own emotions may experience increased stress when dealing with their children's emotional outbursts. Similarly, environmental factors such as financial difficulties or community violence can also contribute to parental stress.

As particular roles in parenting may be linked to health and mental well-being conditions (Pace & Shafer, 2015), addressing episodes of stress and hassles and establishing effective approaches towards managing these situations is crucial. Programs and interventions can help to address these issues and promote positive parenting experiences. Li et al. (2022) suggested that family support and fulfillment of partner roles are effective ways to reduce the severity of parental stress. Family support can take many forms, such as providing emotional support, practical assistance, and childcare help. Fulfillment of partner roles can involve sharing responsibilities in childcare and household tasks, promoting shared decision-making, and showing appreciation and validation for each other's efforts. These approaches can help to reduce the burden of parenting and promote positive and supportive family environments. Furthermore, interventions like parenting education programs, cognitive behavioral therapy, and mindfulness-based interventions, have been found to effectively reduce stress and improving parenting practices (Werner et al., 2016). These interventions can provide parents with skills and strategies to cope with stress and manage parenting challenges more effectively.

Parenting can be a challenging task, and it becomes even more challenging when the parent is also working as a teacher. The literature shows that teachers who are parents face multiple parenting hassles that may impact their professional and personal lives. Previous studies have identified some of the parenting hassles experienced by teacher-parents, such as managing work schedules to attend their children's school activities, dealing with homework, handling behavior problems, and taking care of their children's basic needs (Raver & Knitzer, 2002; Huang, 2011; Wong et al., 2017).

The aim of the current study was to investigate the daily parenting hassles experienced by Filipino teacher-parents using the Parenting Daily Hassles Scale, a reliable and valid instrument used in previous studies (Crnic & Greenberg, 1990; Cox & Bentovim, 2000; Wong et al., 2017). Parenting hassles are defined as the daily challenges and difficulties that parents encounter while fulfilling their parental duties, such as behavior management, feeding, and clothing children. The study objective was to contribute to the discourse of parental role management, particularly during the COVID-19 pandemic, by exploring the challenges and stressors faced by parents in fulfilling their roles.

Although no extensive discussion of the scale's psychometric properties was undertaken in the literature review, future studies may benefit from including a more detailed discussion. This inquiry is significant, given the lack of attention and research focusing on parental roles and tasks (McQuillan et al., 2019). By investigating how contemporary Filipino parents view their roles as mothers or fathers, and by emphasizing behavioral challenges and parental tasks, the aim in the present study was to contribute to the understanding of parental stress and challenges.

Moreover, it is essential to acknowledge the diversity of experiences and challenges faced by parents in different cultural contexts. For instance, studies have found that parenting practices in the Philippines are often influenced by cultural norms, values, and beliefs (Alampay, 2014; Lansford et al., 2016). In Filipino culture, respect for authority and family values are highly regarded, and parents are expected to prioritize their children's education and well-being (Alampay, 2014). This cultural context may lead to unique challenges and stressors for Filipino teacher-parents, highlighting the need for research and support tailored to their specific needs.

The daily parenting hassles experienced by Filipino teachers was the focus sought in the present study, which highlighted the lack of attention and research focusing on parental roles and tasks (McQuillan et al., 2019). This inquiry is significant in contributing to the discourse of parental role management, especially during the COVID-19 pandemic, when multiple roles were assumed all at the same time and in various settings. Understanding the challenges and stressors faced by parents is crucial in developing effective interventions and support programs. By investigating how contemporary Filipino parents viewed their roles as mothers or fathers and putting a premium on behavioral challenges and parental tasks, the aim of the study was to contribute to an understanding of parental stress and challenges.

Overwhelmingly, the importance of recognizing parenting hassles and challenges was highlighted in this study, especially in the context of the COVID-19 pandemic. By understanding the challenges faced by parents, researchers, policymakers, and educators, administrators can develop effective strategies and interventions to support parents and promote positive parenting practices.

Study Framework

The study revolved around the experiences of Filipino teacher-parents in managing daily parenting hassles. The Bioecological Systems Theory (BST) by Bronfenbrenner (1979) formed the basis of the study. This theory posits that a child's development is influenced by multiple systems or environments surrounding the child, such as the microsystem (family and immediate environment) and the exosystem (external environment that indirectly affects the child, such as parents' work). In this study, the focus was on the microsystem, particularly the parent-child interaction within the family context. It was recognized that teachers who are also parents face unique challenges in managing daily parenting tasks and challenges, given the demands of their profession. The role of contextual factors was also considered in shaping the parenting experiences and practices of teacher-parents.

By and large, emphasis was given to the interplay between various factors in shaping the daily parenting experiences of Filipino teacher-parents. These factors included the nature of the parent's profession, the child's developmental stage, and contextual factors such as the COVID-19 pandemic. The aim of the study was to contribute to a better understanding of these factors and their impact on the daily parenting experiences of Filipino teacher-parents.

Methods

This study utilized the survey design method to describe the experiences of teacher-parents on their parenting hassles (Creswell & Creswell, 2018). A survey questionnaire was used as the main research tool, adopting the 15-item Parenting Daily Hassles Scale developed by Crnic and Greenberg (1990) to assess the frequency and impact of potential parenting daily hassles experienced by parents caring for young children. The scale is composed of items related to behavioral challenges and parenting tasks, and has been used in various research studies related to parenting hassles. The present researchers utilized a modified version of the scale by Cox and Bentovim (2000) that was altered to fit the context of the study.

A Google form was used to collect data online. The link to the questionnaire was sent to teacher-parents who were selected through purposive sampling. The target respondents were teacher-parents who had one or more children under the age of 14 and who were living with their child/children at home, serving as the primary caregivers of their child/children.

The criterion used for selection, being a teacher-parent, suggested that the teaching profession could potentially influence their parenting challenges and approaches on a day-to-day basis, especially amidst the COVID-19 pandemic. As teachers, they were more likely to possess a deeper understanding of child development and education, which may have affected their parenting styles and approaches. They may also have faced unique challenges as teacher-parents, such as juggling professional responsibilities with the demands of parenting and the added stress and uncertainty brought about by the pandemic. During the COVID-19 pandemic, the role of teacher-parents became even more critical as they were faced with the task of facilitating their children's distance learning while also managing their daily parenting hassles. This may have had further implications on their mental health and well-being (Cruz & Bernardo, 2017; Solemn et al., 2011).

The researchers also used the age bracket of children under 14 years old as a criterion for selecting teacher-parents to participate in the study. This age bracket is typically associated with early childhood and middle childhood, which are critical periods in a child's development, and where parents may face daily parenting hassles. During these ages, children are still dependent on their parents for their physical, emotional, and cognitive needs. Parents need to attend to their children's daily needs, such as feeding, bathing, and providing emotional support, while also managing their behavior and education. These tasks may have become more challenging during the COVID-19 pandemic, where parents may have faced additional stressors related to remote learning, work-from-home arrangements, and social isolation (Cruz & Bernardo, 2017). The study collected 371 valid responses from teacher-parents employed in different educational institutions in the Philippines.

The utilization of the survey design method and the Parenting Daily Hassles Scale allowed for a systematic investigation of the experiences and hassles of teacher-parents. Collecting data from a diverse sample of teacher-parents provided insights into the challenges and stressors faced by parents in the Philippines. These findings can inform the development of effective interventions and support programs to promote positive parenting practices and improve overall family well-being.

Study participants were mostly females or mothers (90.27% of the total respondents), while the remainder were males or fathers (Table 1). Among the respondents, 9.43% stated that they were single parents or widowed. More than half of the participants (62.80%) taught in grade school, while 33.42% taught in junior and senior high school, and the remainder in higher educational institutions.

The data were analyzed using three methods: Calculating the means, frequencies, and ranking. The total mean for each respondent and the mean of each item for the intensity scale were interpreted using the following descriptors, which were adopted from Li et al. (2022). Mean values falling in the range 1.0–1.5 were recorded as giving *No Hassles*, while values in the range 1.6–2.5 were considered as giving *Some Hassles*. Thereafter, means in the 2.6–3.5 range were recorded as giving *Considerable Hassles*, those in the range 3.6–4.5 as giving *Many Hassles*, and finally means from 4.6–5.0 as giving *Big Hassles*. On the other hand, mean scores for the intensity scale were interpreted using the following descriptors: A mean range 1.0–1.5 as *Low Frequency*, a range 1.6–2.5 as *Average Frequency*, values between 2.6–3.5 as *High Frequency*, and a mean range from 3.6–4.0 as *Very High Frequency*.

Table 1 *Profile of the Respondents*

Feature	Frequency (*f*)	%
Parenting Roles		
Mother Figure	335	90.27
Father Figure	36	9.73
Total	**371**	**100**
Type of Institution		
Grade School	233	62.80
Junior and Senior High School	124	33.42
Higher Education	14	3.77
Total	**371**	**100**

Results and Discussion

The two approaches used in this study provided a comprehensive understanding of experiences of teacher-parents regarding daily parenting hassles. The first approach, which focused on the total mean score of each teacher-parent, provided a general view of how teacher-parents perceived the intensity and frequency of daily parenting hassles. This approach allowed the researchers to draw overall conclusions about the experiences of the teacher-parents surveyed in the study.

The second approach, which focused on the mean score for each daily hassle, allowed the present researchers to determine the specific items in the Parenting Daily Hassles Scale that exerted more pressure on teacher-parents. This approach provided more specific and detailed information about the challenges that teacher-parents face in their parenting roles and tasks. By identifying specific daily hassles that caused more pressure, insights were gained into specific areas where interventions and support could be most useful to alleviate parenting stress.

The combination of both approaches allowed for a more nuanced understanding of teacher-parent experiences and the factors that contributed to their daily parenting hassles. This approach can lead to more effective interventions and support programs that are targeted towards specific areas of need, helping teacher-parents manage their multiple roles and responsibilities. Overall, this study provided valuable insights into the experiences of teacher-parents, particularly during the COVID-19 pandemic, and highlighted the importance of addressing parenting hassles to support positive child development and family well-being.

Parenting Daily Hassles

Based on the results of the study, most teacher-parents were experiencing the occurrence of parenting hassles at an Average level (Table 2). On the frequency scale, 71.16% of teacher-parents experienced an Average frequency of hassles. Only 8.63% of the respondents reported a high frequency of hassles, with the remainder (20.22%) reporting low levels of hassles. It can also be noted in Table 2 that no teacher-parents received a total mean score higher than 3.6. This means that teacher-parents in the area of the Philippines surveyed did not view their experiences of parenting hassles as being of a very high frequency. Considering that the respondents of the current study were teachers, this result validates the findings of BeLue et al. (2015), who found that mothers who worked away from home experienced fewer parenting hassles. Teacher-parents who reported to school every day may view the occurrence of parenting hassles as less frequent, as they only spend a few hours each day with their children at home.

Table 2 *Frequency of Parenting Hassles*

Mean Range	Behavioral Challenges		Parenting Tasks		Total Mean Score		Qualitative Interpretation
	f	**%**	***f***	**%**	***f***	**%**	
1.0–1.5	105	28.30	76	20.49	75	20.22	Low Frequency
1.6–2.5	243	65.50	251	67.65	264	71.16	Average Frequency
2.6–3.5	23	6.20	43	11.59	32	8.63	High Frequency
3.6–4.0	0	0	1	0.27	0	0	Very High Frequency
Total	317	100	371	100	371	100	

A comparison of parenting tasks with behavioral challenges in Table 2 shows that parenting tasks returned slightly higher percentages in the Average, High, and Very High frequency range when compared to behavioral challenges. This means that teacher-parents experienced more parenting hassles occurring on items or activities that required their involvement than those activities that happened due to the child's behavior. The results of the study provide important insights into the frequency of parenting hassles experienced by teacher-parents in the Philippines. Most teacher-parents in our survey experienced parenting hassles in the Average range (Mean Scores 1.6–2.5). This suggests that while parenting hassles were a common experience for teacher-parents, they did not occur at a very high frequency, indicating that teacher-parents may be able to manage their multiple roles and responsibilities effectively.

The finding that working mothers, who are away from home, experienced fewer parenting hassles as noted by BeLue et al. (2015) is relevant in this context. As teacher-parents report to school every day, they may have less time with their children at home compared to working mothers who work outside the home, which could contribute to their lower frequency of parenting hassles.

On the intensity scale, the results shown in Table 3 revealed that teacher-parents experienced a varied intensity or impact of parenting hassles. The majority of the teacher-parents experienced some hassles (40.16% at the Average level), and a sizeable percentage (35.85) fell in the category of experiencing many hassles (2.6–3.5 range). However, very few had a high level of hassles (7.28%), and there was a single instance of a teacher with big hassles. Unlike the results on the frequency scale, wherein the mean scores were greatly concentrated at the Average frequency level (1.6–2.5; Table 2), the mean scores for the intensity scale or impact of hassles were more spread out (Table 3). This observation is similar to the study of Li et al. (2022), where parents experienced different intensity levels of parenting hassles. The impact of parenting hassles may be dependent on the gender of the parent, gender of children, number of children, and age or ages of the child or children.

Table 3 *Intensity of Parenting Hassles*

Mean Range	Behavioral Challenges		Parenting Tasks		Total Mean Score		Qualitative Interpretation
	f	**%**	***f***	**%**	***f***	**%**	
1.0–1.5	79	21.29	54	14.65	61	16.44	No Hassles
1.6–2.5	143	28.54	149	40.16	149	40.16	Some Hassles
2.6–3.5	129	34.77	138	37.20	133	35.85	Considerable Hassles
3.6–4.5	18	4.85	28	7.55	27	18.00	Many Hassles
4.6–5.0	2	0.54	2	0.54	1	0.27	Big Hassles
Total	**317**	**100**	**371**	**100**	**371**	**100**	

It is important to note that the study's results on the intensity scale indicate that a considerable number of teacher-parents experienced a significant impact or intensity of parenting hassles. This could impact their mental and emotional well-being, which could ultimately affect their performance as teachers and as parents. Therefore, it is important for schools and institutions to recognize the challenges faced by teacher-parents, and provide support systems or interventions to help them manage their parenting roles and responsibilities. This could include providing flexible work arrangements, counseling services, or workshops on stress management and coping mechanisms.

As may be gleaned from Table 3, teacher-parents experienced noticeably more hassles in activities involving parenting tasks than in those involving behavioral challenges. The results obtained relating to intensity were consistent with the data from the frequency scale (Table 2), where teacher-parents showed more occurrences of activities that needed parental involvement than those related to their child's behavior. Although the difference in mean scores was not statistically significant, it is worth noting that several kinds of research have been conducted on the behavioral challenges of children and their relation to parenting pressure. These studies have found a correlation between challenging behavior and parenting stress (Creasey & Reese, 1996), and have noted that parents of children with challenging behavior are seen to be highly stressed (Solem et al., 2011). However, in the current study, day-to-day parenting tasks were seen to be more troublesome than children's behavioral problems.

The results of the current study may be attributed to several factors, such as the nature of the teacher-parents' work, age of the children, and the socio-cultural context. Teacher-parents have work responsibilities in school that require attention, which may add to the daily parenting tasks that must be performed. The added workload may cause them to feel more hassled with parenting tasks compared to behavioral challenges. Additionally, the age of the children could also be a factor. The study was limited to teacher-parents who had at least one child under the age of 14, which means that the children may have still required assistance from their parents in completing daily tasks such as preparing meals, doing homework, and getting ready for school. Lastly, the socio-cultural context could also influence the results. Filipino culture places a high value on family and child-rearing, which could lead to higher expectations and demands for parents to fulfill their roles as caregivers and nurturers.

Behavioral Challenges and Parenting Tasks

Aside from the general results of the study, the researchers also looked into the mean scores of each item on the parenting daily hassle scale. Table 4 on the following page shows the mean scores, corresponding interpretations, and ranking of each item on the scale.

All items under behavioral challenges received mean scores that were interpreted as occurring in Average frequency. However, three items were perceived to cause considerable hassles to teacher-parents. Ranked first (Mean Score 2.71) was being nagged, whined at, and complained to, followed by the need to keep a constant eye on where the kids were and what they were doing (Mean 2.63), and the kids would not listen or do what they were asked without being nagged (mean score 2.62). Additionally, the item that kids demand a parent to entertain them or play with them received a Mean Score of 2.45 on the intensity scale. The highlighted items were also the top four that received the highest mean scores on the frequency scale, but with different rankings. The last three items on the list received the same ranks on both the frequency and intensity scales. The items falling into this category were: The kids who resist or struggle with you over bedtime, the kids who interrupt adult conversations or interactions, and the kids who are hard to manage in public. All returned close scores, and were interpreted as representing some hassles.

Table 4 *Mean and Ranking of Parenting Hassles*

Item	Frequency			Intensity		
	Mean	*Qualitative Interpretation*	*Rank*	*Mean*	*Qualitative Interpretation*	*Rank*
Behavioral Challenges						
Being nagged, whined at, complained to	1.99	Average Frequency	3	2.71	Considerable Hassles	1
The need to keep a constant eye on where the kids are and what they are doing	2.34	Average Frequency	1	2.63	Considerable Hassles	2
The kids don't listen or do what they are asked without being nagged	1.90	Average Frequency	4	2.62	Considerable Hassles	3
The kids demand that you entertain them or play with them	2.26	Average Frequency	2	2.45	Some Hassles	4
The kids resist or struggle with you over bed-time	1.76	Average Frequency	5	2.22	Some Hassles	5
Kids interrupt adult conversations or interactions	1.66	Average Frequency	6	2.16	Some Hassles	6
The kids are hard to manage in public (grocery store, shopping mall, restaurant)	1.57	Average Frequency	7	2.00	Some Hassles	7
Parenting Tasks						
Continually cleaning up messes of toys or food	2.56	Average Frequency	1	3.02	Considerable Hassles	1
The kids' schedules (check-ups, school activities, etc.) interfere with meeting your own household needs	2.11	Average Frequency	2	2.78	Considerable Hassles	2
Having to change your plans because of unprecedented child needs	1.88	Average Frequency	5	2.43	Some Hassles	3
Having to run extra errands to meet the kids needs	1.99	Average Frequency	4	2.39	Some Hassles	4
The kids get dirty several times a day requiring changes of clothing	2.01	Average Frequency	3	2.33	Some Hassles	5
The kids are constantly underfoot, interfering with other chores	1.84	Average Frequency	6	2.28	Some Hassles	6
Difficulties in getting kids ready for outings and leaving on time	1.79	Average Frequency	7	2.26	Some Hassles	7
Sibling arguments or fights require a referee	1.71	Average Frequency	8	2.25	Some Hassles	8

The findings on the specific items of the Parenting Daily Hassles Scale provide insights into the challenges that teacher-parents face on a daily basis. The top three items on the list that received the highest mean scores in terms of intensity were all related to the behavioral challenges of children, particularly their tendency to complain, whine, and resist instructions from their parents. These findings were consistent with previous studies that have linked challenging behaviors to parenting stress (Creasey & Reese, 1996; Solem et al., 2011). The item about the kids demanding that a parent entertains them or plays with them also received a high mean score on the intensity scale, indicating that this activity is perceived to have a significant impact on the teacher-parent. This item is related to the need for parents to balance their responsibilities at work and at home, which can be a source of stress and anxiety for many working parents. The last three items on the list received the same rank for both the frequency and intensity scales, suggesting that these activities were not as challenging or troublesome to teacher-parents as the top items. These items were all related to the difficulty of managing children's behavior in public settings, which can be challenging for many parents. In general, the findings on the specific items of the Parenting Daily Hassles Scale provided valuable insights into the particular challenges that teacher-parents faced in their day-to-day lives, and can inform the development of interventions and programs aimed at reducing parenting stress and improving parental well-being.

For items referring to parenting tasks, all items received a mean score that was interpreted as occurring in Average frequency range. However, two items were perceived to cause considerable hassles to teacher-parents based on the mean scores recorded. Ranked first was the chore of continually cleaning up messes of toys or food (Mean Score 3.02), followed by the kids' schedules (check-ups, school activities, etc.) interfering with meeting your own household needs (Mean Score 2.78). These two items also held the same rank on the frequency scale. The rest of the items had mean scores that were all interpreted as involving Some Hassles. It can be noted that the items which ranked 3rd, 4th, and 5th on the intensity scale had slightly different rankings on the frequency scale. However, items that ranked 6th, 7th, and 8th on the intensity scale had the same rankings on the frequency scale.

The results of the present study showed that the daily activities of parents and children, including behavior challenges and parenting tasks, were generally perceived by teacher-parents to happen with normal frequency. However, the impact or the intensity of the hassles perceived by parents varied. Activities that happened more frequently than others were seen to provide more stress to teacher-parents. It should also be noted that most of the daily activities that received low mean scores on the frequency scale also received low mean scores on the intensity scale. This means that teacher-parents were not generally bothered by activities that seldom happened.

Additionally, parenting hassles that interfered with the working schedule of teacher-parents were perceived to be more bothersome than other activities. These include activities such as cleaning up after their kids or arranging work schedules to attend their kid's school activities. These parenting tasks required the teacher-parent to leave their offices or rearrange their teaching schedules to perform the parenting tasks. Consequently, hassles that usually occurred at home were viewed by teacher-parents to be less bothersome, such as bedtime struggles and sibling arguments.

The results of the study provide insights into the experiences of teacher-parents in terms of parenting hassles. It is noteworthy that teacher-parents generally perceived the frequency of parenting hassles as occurring at an Average level. However, the intensity or impact of these hassles varied depending on the nature of the activity. Teacher-parents perceived activities that required their involvement and attention as parents, such as cleaning up messes and scheduling conflicts, to be more bothersome compared to behavioral challenges exhibited by their children.

Moreover, the study highlighted the importance of considering the working schedule of teacher-parents in examining the impact of parenting hassles. Teacher-parents may find it more difficult to attend to parenting tasks that interfere with their work schedule, as it may require them to take time off or rearrange their teaching schedule. Thus, the results of the study can be useful for educational institutions in providing support to teacher-parents, such as flexible work arrangements or resources to help manage parenting tasks.

Conclusions

The daily parenting hassles experienced by Filipino teachers were a result of the demands of being a parent, which involved active engagement with their children. It is important to recognize that each teacher-parent had their own aspirations for their child's development, and these aspirations were shaped by their parenting practices undertaken in different contexts. As challenges arise due to factors such as the child's environment and development, it is important to provide a support system to parents to help them effectively handle these situations. This highlights the need for education and the provision of resources to help parents navigate these challenges. Teachers in particular can benefit from training programs that provide them with strategies to manage parenting challenges while juggling their professional tasks. By providing support, parents can feel better equipped to handle the demands of parenting and promote positive outcomes for their children.

This study found that the parenting hassles experienced by Filipino teacher-parents were perceived as normal and expected occurrences. The data indicated that these experiences were recognized and viewed positively, as they are an integral part of the parent-child engagement process. Given the nature of their profession, it is crucial to understand the role of teachers as parents and how it affects their child-rearing practices and interactions with their children. By examining behavioral challenges and parenting experiences, future researchers can explore ways to improve child behavior through effective control and discipline. It is worth noting that the data also indicated that the unpleasant behavior of children is a significant factor that contributed to parenting pressure.

It is recommended that further examination and research on support be undertaken in order to assist parents in managing the behavioral challenges of their children amidst the burden of their professional tasks as teachers. Such initiatives are significant and crucial in addressing the issues and concerns of the parental landscape in the Philippines relative to various conditions and settings. The design adopted in the present study also had various limitations. The findings and results presented may not be generalized to all teacher-parents in the Philippines, since other factors such as actual role portrayal and professional work tasks also need to be taken into consideration. Moreover, since respondent recruitment and data gathering were done online, the study findings cannot be generalized and applied to all Filipino teachers who go through several parental daily hassles.

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Exploring Intrinsic Motivation and Satisfaction Using Self-Determination Theory: A Study of Gig Workers on Knowledge-Based Service Platforms in China

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Abstract

Many scholars have discussed the gig economy and gig workers since 2015–2016. Knowledge-based service platforms are growing rapidly with the development of technology. In China, over the past seven years, there have been 1,021 financial investments totaling 131.3 billion Yuan in knowledge-based service platforms. Limited research has been undertaken on gig workers' intrinsic motivation and satisfaction with such platforms. The present research study was based on self-determination theory to study gig workers' intrinsic motivation and satisfaction on the six biggest knowledge-based service platforms in China. It fills a research gap in the study of gig workers' motivation. A self-administrated questionnaire was distributed online to respondents to collect data. Finally, 1,049 valid responses were obtained. The research compared gig workers with and without full-time jobs. The Partial Least Squared method was applied to analyze and generate the results. It was found that self-determination and social capital positively influenced intrinsic motivation, and intrinsic motivation positively influenced gig workers' satisfaction on knowledge-based service platforms. Also, older gig workers in full-time jobs showed less work satisfaction than the younger group. Some practical suggestions were made to platforms as well as to gig workers.

Keywords: *Gig workers, knowledge-based, social capital, motivation, satisfaction*

Introduction

The term "gig" originated in the United States in the 1920s to refer to performers working short-term at jazz clubs when the full-time artist was absent or the club was understaffed (Montgomery & Baglioni, 2020). The gig economy is also called the freelancer economy or the part-time job economy (Ashford et al., 2018). In general, the gig economy refers to workers who provide services to organizations and individuals on a temporary basis (Marquis et al., 2018). Moreover, Lao (2017) defined gig workers as having non-standard jobs that lack long-term industrial relations. The gig economy has grown rapidly during the past two decades in China. At the same time, knowledge-based service platforms have also increased quickly, especially during the COVID-19 pandemic situation. According to Chen (2022), 131.3 billion Yuan has been invested in knowledge-based service platforms in China over the past seven years. Moreover, there were 144 million users using online platforms in 2017, and by June 2022, the number of users had reached 381 million (Wenhao, 2022).

Management styles, motivation approaches, and organizational structures in the gig economy differ from those in traditional full-time employment. The level of intrinsic motivation and job satisfaction of gig workers may also differ from that of full-time employees. As a result, organizations or platforms cannot use a management style appropriate for full-time employees to manage gig workers, and motivation approaches are also different (Duggan et al., 2020). This study focused on gig workers who worked for the six biggest knowledge-based service platforms in China, comparing those who had full-time jobs to those who did not. This research was based on self-determination theory (SDT) to study gig workers' intrinsic motivation and their job satisfaction. There were three main research objectives:

1. To study factors that drive gig workers' intrinsic motivation based on self-determination theory.
2. To investigate how gig workers' intrinsic motivation influenced their satisfaction.
3. To compare differences between gig workers who had full-time jobs and those who did not.

Limited research on SDT in the gig economy has been done, with only one study linking self-determination, job characteristics, and motivation influencing the satisfaction of gig workers (Zaman et al., 2020). Additionally, many researchers have discussed and studied social capital in different industries and fields. However, most previous research papers have addressed the relationships between social capital, knowledge management, and knowledge sharing (Hau et al., 2013). Also, some previous researchers discussed social capital and innovation in organizations (Weerakoon et al., 2019). This research can provide different perspectives on gig workers' motivation on knowledge-based service platforms based on SDT theory.

Literature Review

Self-Determination Theory

Self-determination theory was developed by Deci and Ryan (2000); it was generally applied to human motivation in work, education, health, and sport. There are three dimensions of SDT, which are autonomy, relatedness, and competence. *Autonomy* refers to an individual's own volition and thoughts leading to their chosen action or behavior that is not directed or influenced by others. *Competence* refers to someone feeling confident in the ability to successfully complete a task or achieve a goal. Finally, perceived *relatedness* refers to a sense of belonging and connection that a person prefers, likes, appreciates, and values in a particular situation (Deci et al., 2017). Donovan et al. (2016) found that gig workers enjoy and are satisfied by independence or working with a high degree of autonomy, especially when they performed well on their own individual tasks. Some gig workers chose to work part-time due to their interests and hobbies. It has been found that gig workers like to work independently, and are able to cope with different challenges and situations (Petriglieri et al., 2019). Moreover, Rockmann and Ballinger (2017) suggested that the psychological needs of relatedness of gig workers might not come from their co-workers or supervisors; they could come from their clients, such as good interactions with clients, positive feedback, and positive comments from the clients. A good relationship with the clients also enables gig workers to internalize intrinsic motivation in terms of acceptance of their own value (Gagné & Deci, 2005). Customers' positive and affirmative feedback also are very important to gig workers, as this satisfies their needs for competence (Rockmann & Ballinger, 2017). Moreover, gig workers have to self-iterate to develop their own skills and capabilities, and engage in self-iteration in order to adapt to the competitive marketplace and unstable work demands (Ashford et al., 2018). Building and developing core competencies, as well as learning and growth, will qualify gig workers to handle various types of work in a wider range of workplaces. Therefore, the following hypothesis was proposed:

Hypothesis 1: Self-determination positively influences the intrinsic motivation of gig workers operating on knowledge-based service platforms.

Social Capital

Many previous research studies have tested and confirmed that social capital is related to intrinsic motivation (Chang & Chuang, 2011; Yamaguchi, 2013). Shared goals, social trust, and social interactions are the most important factors of social capital. Chang and Chuang (2011) discovered that in virtual communities, people had stronger intrinsic motivation connections with shared values and common interests, and that the age of virtual community members was sometimes similar. In the context of the gig economy, people choose to work part-time for various reasons, including work-life balance, and purely personal interest. They want to have more opportunities to meet people and work with different groups and organizations, and they like to share their experience and knowledge with others (Ashford et al., 2018). Meanwhile, some groups of gig workers have their own virtual or offline communities to share their experiences. According to the statements above, the following hypothesis was proposed:

Hypothesis 2: Social capital positively influences the intrinsic motivation of gig workers on knowledge-based service platforms.

Intrinsic Motivation and Work Satisfaction

Based on self-determination theory, researchers have confirmed that intrinsic motivation is linked with satisfaction (Deci et al., 2017). Moreover, previous studies have confirmed that individual achievement, specialization development, and opportunities for improvement are good predictors of job satisfaction (Gagné et al., 2018). Additionally, Davidson et al. (2018) found that employees' intrinsic motivation was related to workplace satisfaction. In the context of the gig economy, workers are intrinsically motivated by some job characteristics, especially those related to their interests and hobbies. It has also been found that some gig workers select gig jobs just because they want to kill time, meet new people, or share their experiences about achieving work-life balance goals (Jabagi et al., 2019). Meanwhile, highly-skilled gig workers with more autonomy and flexibility in their jobs are more easily motivated intrinsically, and also are satisfied with their jobs (Rockmann & Ballinger, 2017). This study focused on gig workers who worked for knowledge-based service platforms. They needed professional skills and knowledge to operate professionally, so they were categorized as highly skilled workers. Hence, the following hypothesis was proposed:

Hypothesis 3: Intrinsic motivation positively influences the work satisfaction of gig workers on knowledge-based service platforms.

Methodology

Sample and Data Collection Procedure

This study targeted gig workers who worked on the six biggest knowledge-based service platforms which are the most popular, and have the most users and daily active users in China. These platforms were Himalaya FM, Dragonfly, Tencent classroom, Cloud classroom of Netease, Zhihu Live, and Dedao application. In this study, an online, self-administered questionnaire was used to collect data from the targeted participants. A snowball technique was applied. The researcher enlisted the help of 47 informants who were gig workers on the six targeted knowledge-based service platforms and collected 1,113 responses in total. They were divided into two groups: Gig workers with full-time jobs, and those without full-time jobs. Valid data from gig workers with full-time jobs was received from 608 respondents, while data from gig workers without full-time jobs was received from 441 respondents. The respondents' demographics are shown in Table 1.

Table 1 *Respondent Demographics*

Characteristic		With a Full-time Job		Without a Full-time Job	
		Frequency	Percentage	Frequency	Percentage
Gender	Male	235	38.7	181	41.0
	Female	373	61.3	260	59.0
Age	< 18 years old	9	1.5	6	1.4
	18–25 years old	159	26.2	116	26.3
	26–35 years old	230	37.8	168	38.1
	36–45 years old	138	22.7	94	21.3
	46–55 years old	55	9.0	43	9.8
	> 56 years old	17	2.8	14	3.2
Education	High school	84	13.8	49	11.1
	College	162	26.6	96	21.8
	Bachelor	295	48.5	224	50.8
	Master	52	8.6	49	11.1
	Ph.D. / Doctoral	15	2.5	23	5.2
Knowledge-Providing Formats	Text	83	13.7	75	17.0
	Audio	144	23.7	114	25.9
	Video	182	29.9	119	27.0
	Comprehensive	199	32.7	133	30.2

Measures and Data Analysis

The measurement scales developed by previous scholars in their studies were adopted in the present research. There are several strengths to utilizing such developed measurement scales. The existing scales have been tested and confirmed as able to indicate the quality of concepts that are measured. Meanwhile, the same measurement scale that has been tested by others shows the validity and reliability of the questionnaire, and the quality of data tends to be high (Hyman et al., 2006). Perceived autonomy (five items) included questions such as: I had the opportunity to set my own priorities at work on this platform. Perceived relatedness (five items) included questions such as: Some people I work with are close friends of mine on this platform. And perceived competence (five items), included questions such as: I feel competent at my job on this platform. These are the three essential dimensions of self-determination theory. The scale of measurement was developed based on Spanuth and Wald (2017).

Social capital consists of three dimensions (social trust, social interactions, and shared goals). Social trust also involved three items; in this section, questions were such as: I have a very good relationship with my community members on this platform. Social interactions (three items), used questions such as: Members of the platform are truthful with one another. And shared goals (three items), used questions such as: The platform members and I share the same ambitions and visions. This measurement scale was as developed by Chow and Chan (2008).

The intrinsic motivation measurement scale was developed according to Altindis' (2011) study, and it consists of four items. One question used was: I enjoy this gig work very much on this platform. The gig workers' satisfaction measurement scale was developed based on Cammann et al.'s (1979) work. An illustrative question was: All in all, I am satisfied with my gig work on this platform. All the measurement items were measured on a five-point Likert scale. The scale ranged from 1 (*Strongly Disagree*) to 5 (S*trongly Agree*). Besides these items, control variables might also influence the gig workers' intrinsic motivation and their satisfaction with the knowledge-based service platforms. In the research, the control variables consisted of gender, age, education level, and knowledge-providing formats.

In this study the Partial Least Squares Structural Equation Modeling (PLS-SEM) method was used to estimate the proposed model and analyze the data. SmartPLS 3.0 was applied to analyze the data and generate the results. Normality, reliability, validity, and multi-collinearity tests were utilized before analyzing the data using the regression model.

Results

First, the normality of the distribution was tested; skewness and kurtosis are criteria to measure whether a distribution is normal. Based on the suggestions of D'Agostino (2017), the values of skewness and kurtosis should range from -1 to +1. In this research, for the gig workers with full-time jobs, the values of skewness and kurtosis ranged from -0.234 to -0.849, whereas for the gig workers who did not have full-time jobs, the values ranged from -0.155 to -0.754. This indicated that the data from the two groups were normally distributed, and it was acceptable to proceed to the next step of the analysis. Since this research examined latent variables, it was necessary to test for the validity and reliability of the latent variables. According to Zikmund et al. (2013), the value shown by multi-indicator constructs should be > .50 to satisfy the requirement of convergent validity. In this research, for gig workers in a full-time job group, the factor loadings ranged from 0.621 to 0.885, whereas for gig workers who did not have full-time jobs, the indicator factor loading ranged from 0.737 to 0.886. Analysis indicated that all the factor loadings were above 0.50. Hence, the convergent validity requirements for both groups were met in this study.

Another criterion to test validity is discriminant validity. Based on the suggestions of Zikmund et al. (2013), each value returned for the latent variable average variance extracted (AVE) should be greater than other latent variable squared correlations. The results obtained are displayed in Table 2. The next step was to test the reliability. Cronbach's alpha and internal consistency reliability are measures of reliability. According to Hair et al. (2007), Cronbach's alpha should be greater than .70 to satisfy the level of reliability. Moreover, based on Zikmund et al. (2013), the coefficient value of composite reliability should also be higher than .70.

In Tables 2 and 3, it is shown that Cronbach's alpha and composite reliability coefficients were all greater than the suggested level of .70 for all gig workers. Therefore, the reliability test showed the data of the respondents were satisfactory.

Table 2 *Correlations and Square Roots of Average Variance Extracted (Gig Workers With Full-Time Jobs)*

ITEM	SDT	SC	IM	SAT	GD	AGE	ED	KF	CRONBACH'S ALPHA	COMPOSITE RELIABILITY
SDT	(.859)	.747**	.823**	.828**	.003	.022	.047	-.005	.962	.962
SC		(.878)	.833**	.849**	.019	.005	.046	-.013	.967	.967
IM			(.918)	.749*	-.001	.022	.072	-.021	.924	.920
SAT				(.872)	.021	-.011	.055	-.017	.937	.936
GD					(1)	-.006	.001	-.019	n/a	n/a
AGE						(1)	.02	-.50	n/a	n/a
ED							(1)	-.033	n/a	n/a
KF								(1)	n/a	n/a

Notes. *p < .05, **p < .01, SDT = Self-determination Theory, SC = Social Capital, IM = Intrinsic Motivation, SAT = Satisfaction, GD = Gender, AGE = Age, ED = Education, KF = Knowledge Formats.

Table 3 *Correlations and Square Roots of Average Variance Extracted (Gig Workers Without Full-time Jobs)*

ITEM	SDT	SC	IM	SAT	GD	AGE	ED	KF	CRONBACH'S ALPHA	COMPOSITE RELIABILITY
SDT	(.848)	.837**	.712*	.823**	-.037	.072	.137*	.109*	.966	.966
SC		(.742)	.715**	.637*	.000	.061	.123*	.057	.970	.968
IM			(.788)	.708*	-.058	.086	.173*	.059	.933	.923
SAT				(.917)	-.031	.044	.143*	.072	.945	.941
GD					(1)	-.070	-.022	.018	n/a	n/a
AGE						(1)	.033	-.039	n/a	n/a
ED							(1)	-.010	n/a	n/a
KF								(1)	n/a	n/a

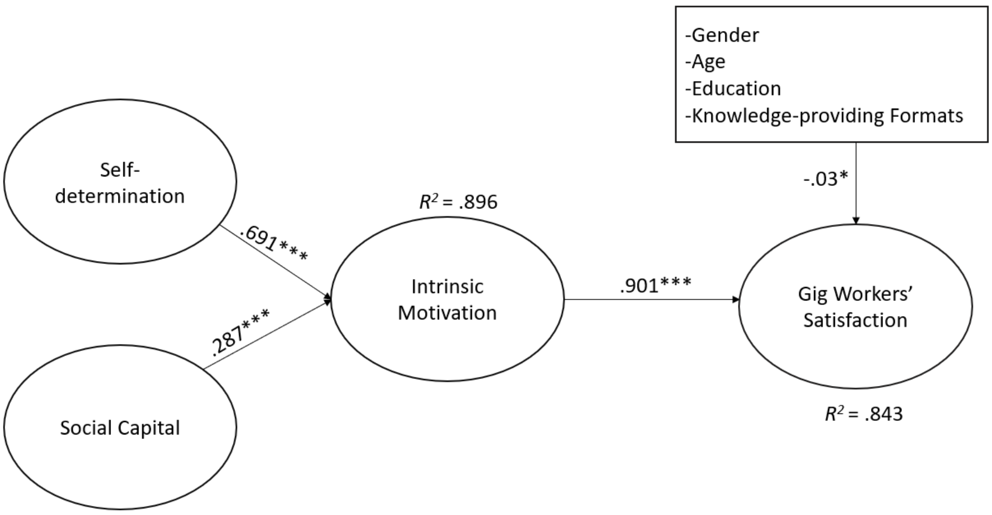
Notes. *p < .05, **p < .01, abbreviations as in Table 2.

The multi-collinearity properties also were examined. The variance inflation factor (VIF) was used to measure multi-collinearity. According to Hair et al. (2013), the VIF value should be lower than five, and if it is more than five, the latent variables might have a potential collinearity problem. The gig workers with full-time jobs returned VIF values ranging from 2.288 to 4.60, whereas gig workers who did not have full-time jobs showed VIF values ranging from 2.533 to 4.895. Because self-determination, social capital, intrinsic motivation, and gig workers' satisfaction are strongly correlated, the VIF values tend to be close to the threshold of five, but they were still acceptable.

In the PLS-SEM model, the most common model fit indicators are Standardized Root Mean Square Residual (SRMR), d_ULS (i.e., the squared Euclidean distance), and d_G (i.e., the geodesic distance). Litze and Bentler (1999) suggested the SRMR value should be below .08. There are two different approaches to analyzing the discrepancy between the empirical covariance matrix and the covariance matrix, which are d_ULS (i.e., the squared Euclidean distance) and d_G (i.e., the geodesic distance) (Dijkstra & Henseler, 2015). When the difference between the correlation matrix implied by the model under test and the empirical correlation matrix is very small, it could be attributed purely to sampling error, which means that the model fits very well (Ramayah et al., 2017). Moreover, the difference between the correlation matrix and the empirical correlation matrix should not be significant, which means the *p*-value should be more than .05. On the contrary, if the difference is significant or the *p*-value is less than .05, it means the model fit has not been fulfilled (Henseler et al., 2016). The value of SRMR of gig workers with full-time jobs was equal to .02, whereas for gig workers without full-time jobs, the SRMR value was .024, which was less than the suggested value .08. Hence, the model fit was good. The d_ULS value for gig workers with full-time jobs was equal to 0.622 (p = .594), and the d_G value was equal to 0.718 (p = .639). By contrast, the d_ULS value for the gig workers without full-time jobs was equal to 0.856 (p = .741) and the d_G value was equal to 0.984 (p = .906). The d_ULS and d_G differences were not significant, which indicated that the two groups of data fitted the model well. Hence, in this research the two models met the model fit criteria requirements.

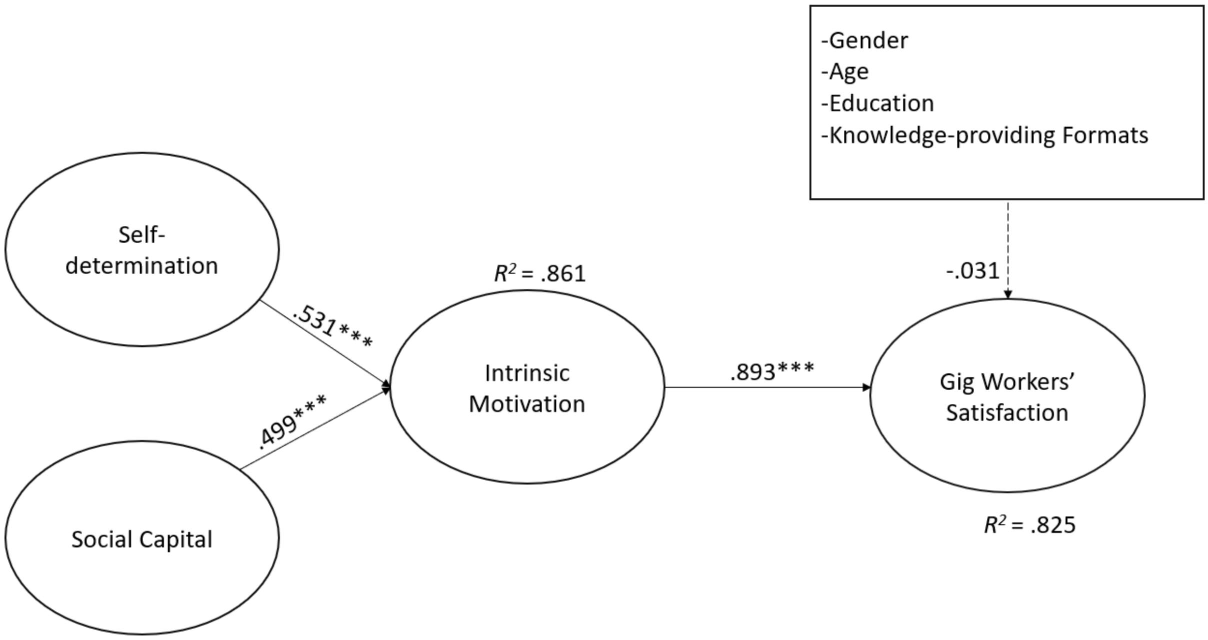
The results obtained for testing the two groups of hypotheses are shown in Figures 1 and 2. For gig workers who had full-time jobs, Hypotheses 1, 2, and 3 were all supported; for each hypothesis, the *p*-values were less than .001. Meanwhile, the beta value of each hypothesis was positive. For gig workers who did not have a full-time job, the beta values obtained also were positive, and the *p*-values shown against each hypothesis were lower than .001. This indicated that Hypotheses 1, 2, and 3 for the gig workers without full-time jobs were also supported. The adjusted *R* squared is displayed in Figures 1 and 2. In respect to the control variables, the age of the gig workers with full-time jobs were negatively related to their satisfaction. The beta value was -0.03, and the *p*-value was equal to .043. This means that compared with older gig workers, younger gig workers had more satisfaction with their gig work on the knowledge-based service platforms. For the other control variables, the *p*-value was not significant, which means that other control variables were not significantly associated with full-time gig workers' satisfaction. On the other hand, for gig workers who did not have full-time jobs, the results relating to the control variables were different. All *p*-values were significant, which means that the control variables did not significantly influence gig workers' satisfaction.

Figure 1 *Hypothesis Testing Results (Gig Workers With a Full-time Job Group)*



Note. *p < .05, ***p < .001

Figure 2 *Hypothesis Testing Results (Gig Workers Without a Full-time Job Group)*



Note. $^*p < .05$, $^{***}p < .001$

Discussion and Conclusions

General Discussion and Contributions

Based on the self-determination theory, an investigation was carried out in this study on gig workers' intrinsic motivation and job satisfaction with knowledge-based service platforms. The study design compared gig workers with and without full-time jobs. It was found that self-determination in terms of perceived autonomy, perceived relatedness, and perceived competence were positively associated with intrinsic motivation. These findings are consistent with those of Haivas et al. (2012), who investigated the impact of self-determination on volunteer motivation. They found that self-determination in terms of autonomy was the most effective factor that influenced volunteers' intrinsic motivation.

Moreover, it also was found that social capital was significantly positively related to intrinsic motivation. Zhang et al. (2017) found and confirmed that social capital, in terms of social trust and shared goals, positively influenced the intrinsic motivation that made people have a higher intention of sharing their knowledge in a health question and answer community.

This research also indicated that intrinsic motivation was positively associated with gig workers' satisfaction. Meanwhile, it applied to both gig workers with and those without full-time jobs. This finding is consistent with the previous study of Zaman et al. (2020) on job characteristics, motivation, and satisfaction of gig workers. These researchers found that gig workers' intrinsic motivation positively affected their joy of work as well as their work satisfaction; they also found that intrinsic motivation was related to workplace satisfaction.

Furthermore, from the standpoint of control variables, the age of gig workers in full-time jobs was negatively related to their work satisfaction, and the *p*-value was less than .05, which was statistically significant. This means that respondents who were gig workers with full-time jobs, particularly younger gig workers, were more satisfied with work involving knowledge-based service platforms. When compared to younger gig workers, older gig workers were less satisfied with their jobs. The reason for this may be that younger gig workers had more energy and were more willing to try new things than older generations. Moreover, a majority of younger gig workers were not married with their own families, whereas the older gig workers might already have their own families, and may not have enough energy or time to focus on their gig work. Rožman et al. (2019) also studied age-diverse employees' occupational stress, burnout, and work satisfaction. They found that age was positively related to occupational stress; however, age was negatively related to their work satisfaction due to stress, along with behavioral, emotional, and physical symptoms of burnout.

The present study fills a research gap in the application of self-determination theory to the gig economy and knowledge-based service platform industries. It also compares gig workers with full-time jobs to those without full-time jobs. Some procedures and suggestions can be provided to knowledge-based service platforms, as well as to gig workers. First, the platforms should provide autonomy to the gig workers, such as flexible working hours and working places, and even allow the gig workers to choose their tasks and projects. Meanwhile, the platforms can also provide an internal referral rewards system to encourage gig workers to introduce their qualified friends to join the platforms and work together with them. Second, in terms of social capital, the platforms can host online activities and forums to encourage gig workers to interact more. They can also hold on-site and face-to-face activities in different cities to give gig workers opportunities to meet in person in order to boost their social interaction and social trust, and improve their intrinsic motivation. Thirdly, the study found that intrinsic motivation significantly influenced gig workers' work satisfaction, and the beta value obtained was the highest. Therefore, gig workers' intrinsic motivation is the key to their work satisfaction. It is suggested that gig workers find a field that they really enjoy and are interested in before they join a platform.

This research also enables some advice and suggestions to be made to people who would like to join the knowledge service providing platforms and become gig workers. In order to become a gig worker on such a platform, individuals have to choose a field that they are really interested in and are very good at. It is not necessary to have a professional certificate, but they should have enough knowledge and qualities to share, such as beauty and makeup, fitness, storage, and so on. Finally, the knowledge-based service platform operators might consider giving more opportunities to the younger generation when they recruit. Moreover, platforms could also let gig workers try to use different types of tools for sharing their knowledge, such as video, audio, and comprehensive methods.

Limitations and Future Studies

This research study had some limitations. First, because the data was collected using a self-administered questionnaire, the study could not provide a more in-depth look into the thoughts of gig workers. Additionally, the study did not test other factors that might have influenced gig workers' intrinsic motivation and their work satisfaction. Also, the study did not classify the specific area and field in which the gig workers worked on the knowledge-based service platforms. This means that the research could not be used to compare which area of knowledge the gig workers had more intrinsic motivation and work satisfaction.

As stated in the limitations, it is recommended that it would be advantageous to use a mixed methods approach and incorporate qualitative research methods to enable in-depth interviews to be conducted with gig workers in future studies in order to better understand their perspectives. Furthermore, future researchers could examine how extrinsic motivation affects gig workers job satisfaction. They could also categorize the different fields of knowledge that gig workers have, and compare their intrinsic motivation and satisfaction towards the platforms, such as language learning, beauty and health, career development, soft skills development, and other features.

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Personality Types and Preferred Lesson Delivery Methods Among Science, Technology, Engineering, and Math Students During Distance Learning[1]

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Abstract

During the COVID-19 pandemic, students had to adapt to different online learning strategies and approaches. In this study, the aim was to determine what lesson delivery methods would cater to and satisfy the learning needs of students with different personality types. Students of the Adventist University of the Philippines Academy were selected as participants in this descriptive-correlational study. The data showed that participants' personalities revealed average levels of extraversion, conscientiousness, neuroticism, and openness, and high levels of agreeableness. The three lesson delivery methods used, namely, synchronistic, recorded videos, and textual formats were all perceived as very good. Students with conscientiousness and openness personality traits preferred to experience all three lesson delivery methods, while those with high agreeableness preferred having synchronistic and recorded delivery methods. Students with high scores on the extraversion and neuroticism personality scales preferred a synchronistic lesson delivery method. Furthermore, agreeableness predicted a preference for the synchronistic delivery method. Finally, female students learned better when exposed to video recorded lessons. It was concluded that personality traits were associated with the effectiveness of lesson delivery methods as perceived by the students.

Keywords: *Personality traits, learning strategies, distance learning, satisfaction*

Introduction

A teaching strategy is directed by one's belief about learning, and it influences and affects the experiences that teachers provide to students. The context of the teaching situation, as well as students' learning situations, also helps to identify appropriate instructional modes, such as teaching face-to-face courses or online learning approaches. Students were forced to adapt to different online learning strategies and approaches that served as alternatives to face-to-face learning setups because of the COVID-19 pandemic. Online learning was necessary during the pandemic. This is also referred to as e-learning, online education, or distance learning, and is defined as synchronous or asynchronous learning experiences involving the use of devices through access to the Internet (Yen & Nhi, 2021). Online learning platforms like Zoom, Google Classroom, and MS Teams have increased in use since the start of the pandemic (Singh & Awasthi, 2020). Utilizing effective methods of lesson delivery during online education is essential for the overall learning satisfaction of students.

Learners' personality traits play a significant role in their academic choices and accomplishments. A connection between students' personality types and their learning approaches and absorption of information has been found in some studies. A study by Seyal et al. (2019) indicated that there was a relationship between the big five personality traits and the preferred lesson delivery methods among students.

Personality traits are distinctive patterns of thoughts, feelings, and behaviors that people exhibit (Diener & Lucas, 2022). Personality traits tend to be consistent and stable. Thus, trait psychology is based on the premise that people differ from one another based on their personality traits. The five-factor model is the most extensively used personality trait system (Chmielewski & Morgan, 2013).

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Edwin van Thiel (2022) indicated that the "Big Five Personality" system is the most scientifically validated and reliable psychological model to test personality. It consists of five major traits consisting of openness, conscientiousness, extraversion, agreeableness, and neuroticism. *Openness* is a characteristic that includes imagination and insight. It leads to having a broad range of interests, and being more adventurous when it comes to decision making. *Conscientiousness* is a trait that includes high levels of thoughtfulness, good impulse control, and goal-directed behaviors. A highly conscientious person regularly plans ahead and analyzes personal behavior to see how it affects others. *Extraversion* is a trait that many encounter in their lives. This trait, among other things, includes talkativeness, assertiveness, and high amounts of emotional expressiveness. People who exhibit high *Agreeableness* show signs of trust, altruism, kindness, and affection. *Neuroticism* is characterized by sadness, moodiness, and emotional instability. It is often mistaken for anti-social behavior or worse. Neuroticism is a physical and emotional response to stress and perceived threats in one's daily life (McCrae & Costa, 1987; Goldberg, 1993; Smith, 1967; Norman, 1967; Fiske, 1949).

Moreover, these personality traits are important factors to consider when considering different lesson delivery methods. These include video recordings, synchronous meetings, and textual modules. Certain personality characteristics have been found to be positively correlated with deep approaches to learning, effective learning strategies, better time and effort management, and organizational skills (Agler et al., 2020). Murphy et al. (2020) indicated that students displayed strong preferences both for and against certain teaching methods that suited their temperaments, abilities, and experiences.

The online learning experiences to which students were exposed in previous studies included structured, pre-recorded video lectures provided by the instructor. These offered video simulations with clear audio and good visualization, and covered a broad scope of topics, allowing the students to learn at their own pace and re-watch them if needed. Synchronous meetings were also used, and these represented live meetings wherein teachers met virtually with their students at certain times in different online learning platforms such as MS Teams, Google Classroom, and Zoom to discuss their course lessons. Synchronous meetings allow live interaction between the students and the instructor, which creates a learning atmosphere similar to face-to-face classes (Grover et al., 2021). In addition, self-learning modules can be used to provide online learning materials. They were made available by schools and educators to students for study at their own pace, which ensured quality learning amidst the ongoing pandemic (Department of Education, Philippines, 2020).

Choe et al. (2019) found that asynchronous online lecture videos increased learner satisfaction and even engagement. Similarly, live or synchronous meetings positively affected learners' satisfaction during online classes, which allow real-time consultation, questioning, responses, and reflection (Zeng & Wang, 2021). Zeng and Wang's study indicated that providing synchronous meetings for addressing queries was essential to supplement lessons taught through live meetings. Lastly, regarding textual learning, Gillan et al. (2018) reported that user interaction satisfaction was higher when an e-module with more textual contents was used in contrast to one that primarily provided more video content.

Moreover, the gender of students can influence their learning abilities. Research by Basuony et al. (2020) showed that most females are read and write learners (50.7%), and regularly take notes and make drawings for future reference. Meanwhile, males were found to be mostly kinesthetic learners (29.3%), meaning they do best when given hands-on experiences and high-energy activities. These findings were consistent with Grollino and Velayo's (1996) study, where males generally attributed their achievements to external causes like teaching, while females credited success to their own study efforts. Hence, it was suggested that males are more externally focused, whereas females are more self-reflective (Wehrwein et al., 2007). This means that gender, as well as personality traits, influences individual lesson delivery preferences. Future studies have also been urged to incorporate personal variables and learner attributes like gender that can affect online learning. (Al-Nasa'h et al., 2021). Moreover, Cabual (2021) mentioned that age is not a factor in learning styles, and preferred learning modalities in the new normal since all learners were increasingly likely to attend both synchronous and asynchronous classes.

The personality traits of students and their impact on perceptions of distance learning usability has often been overlooked (Vlachogianni & Tselios, 2021). In the last few years, however, studies have been done to analyze external factors, specifically personality types and traits that affect a student's learning motivation and satisfaction (Sorić et al., 2017). However, there is a need to investigate specific online learning design elements and how these may influence the perception of adequacy held by those with various personality traits (Bhagat et al., 2019). Thus, the purpose of this study was to determine whether the big five personality traits of students were related to their preferred lesson delivery methods.

Statement of the Problem

This study aimed to determine the relationship between personality types and preferred lesson delivery methods. Specifically, this study sought to answer the following questions:

1. What personality types were represented among the participants in the study?
2. What were the perceptions of respondents regarding the lesson delivery methods involving synchronistic, recorded video, and textual approaches?
3. Were students' personality types significantly associated with the preferred lesson delivery method?
4. Among the personality traits identified, which best predicted the preferred lesson delivery methods of the respondents?
5. Did gender influence the preferred lesson delivery methods of respondents?

Methodology

Research Design

A descriptive-correlational approach was used in this study. The descriptive element was used to determine the personality types of the participants and their preferred lesson delivery methods. The relationships between a student's personality type and preferred lesson delivery methods were analyzed using well-known correlation and regression methods.

Population and Sampling Technique

The student population used in the study were Science, Technology, Engineering, and Mathematics, or STEM, students at Adventist University of the Philippines Academy who were enrolled during the second semester of 2021–2022. A cluster sampling technique was used to select 110 students. This sampling approach was preferred as participants were grouped by strand, and they were experiencing the three lesson delivery methods at the same time. The majority (55%) of respondents were female, and the remainder male.

Instrumentation

The researchers prepared a questionnaire that was divided into three parts as follows:

1. *Respondent's Profile Evaluation*. This part of the questionnaire identified the participants' gender, which was used as the moderating variable.
2. *Big Five Inventory for Personality Type*. The five-factor model, also known as the "Big Five," is the most widely used and scientifically supported model for personality traits (Chmielewski & Morgan, 2013). It was constructed by Goldberg (1993), and it encompasses five personality traits such as extraversion, agreeableness, conscientiousness, neuroticism, and openness. This 44-item test was used to evaluate the personality traits of the participants. The results were scored using a 5-point Likert scale, with five being the highest (*Strongly Agree*) and one being the lowest (*Strongly Disagree*).
3. *Lesson Delivery Methods Evaluation*. This section of the questionnaire involved a 30-item test regarding the evaluation of the three lesson delivery methods. Each lesson delivery method was allocated 10 questions, and these were scored on a 5-point Likert scale, ranging from 5 (*Always*) to 1 (*Never*).

These instruments were assessed by experts for validity and reliability. Table 1 shows the results obtained for the reliability test. A score of more than .70 is considered acceptable. However, some authors suggest higher values of .90 to .95 (Salkind, 2015; Tavakol & Dennick, 2011; Lavrakas, 2008). Hence, all personality traits and lesson delivery questions were acceptable and were retained.

Table 1 *Reliability Test Result of Personality Traits, and Lesson Delivery Methods*

Subscale	Cronbach Alpha	Interpretation
Personality Traits		
Extraversion	.803	Acceptable
Agreeableness	.723	Acceptable
Conscientiousness	.807	Acceptable
Neuroticism	.720	Acceptable
Openness	.813	Acceptable
Lesson Delivery Methods		
Synchronistic Method	.852	Good
Recorded Video Method	.914	Good
Textual Method	.857	Good

All negative statements were recoded before the means of every variable were computed. Table 2 shows the rating scale for interpretation used in the study.

Table 2 *Mean Interval, Response Scale, and Interpretation*

Mean Interval	Response Scale	Response Scale	Interpretation
4.50–5.00	Always	Strongly Agree	Very High
3.50–4.49	Often	Agree	High
2.50–3.49	Sometimes	Moderately Agree	Average
1.50–2.49	Rarely	Disagree	Low
1.00–1.49	Never	Strongly Disagree	Very Low

Data Gathering Procedures

Ethics approval was received from the Review Board at Adventist University of the Philippines prior to the study being commenced. The principal of the University's Academy was contacted by letter outlining the purpose and objectives of the study, and the non-disclosure provisions involved. The student participants were familiarized with the Google Form and informed of the ethics approval conditions governing the study. Anonymity and confidentiality were observed throughout the study.

Data Analysis

The data collected from the Google Form was aggregated in an Excel file and exported into SPSS version 21.0 to apply different statistical analytical processes. Descriptive statistics were used to find the levels of personality traits and the preferred lesson delivery methods of the respondents. For inferential statistics, Pearson's correlation was utilized to find the relationship between the participants' personality traits and preferred lesson delivery methods. The predictors of lesson delivery method were identified using multiple regression analysis. Furthermore, a *t*-test was used to determine if there was a significant difference in students' preferred lesson delivery methods when gender was considered.

Results and Discussion

Level of Personality Types of the Respondents

The personality traits are presented in Table 3. It is readily observed that all personality traits, with the exception of agreeableness, were at the average level.

The results imply that respondents had a great deal of interest in other people, were willing to assist others who were in need of help, and enjoyed helping and contributing to the happiness of other people. They were moderately open to trying new things, they focused on tackling new challenges, and they were willing to spend time preparing and finishing important tasks right away. They enjoyed being the center of attention, found it easy to make new things, and sometimes were easily upset and struggled to bounce back after stressful events.

Table 3 *Level of Personality Traits of the Participants of the Study*

Personality Trait	Mean	*SD*	Scaled Response	Interpretation
Extraversion	3.06	0.73	Moderately Agree	Average
Agreeableness	3.77	0.63	Agree	High
Conscientiousness	3.45	0.64	Moderately Agree	Average
Neuroticism	3.41	0.69	Moderately Agree	Average
Openness	3.49	0.63	Moderately Agree	Average

Personality traits represent the distinctive thoughts, feelings, and behavior patterns that people possess. Individuals who scored high on a particular characteristic, such as extraversion, can be assumed to be socially active at a variety of times and in various situations (Diener & Lucas, 2022).

Research conducted by Cohen and Baruth (2017) indicated that openness and conscientiousness were significant predictors of learning satisfaction. Furthermore, the findings showed that groups with the same personality traits preferred the same method of synchronous lesson delivery.

Preferred Lesson Delivery Methods of the Respondents

Table 4 shows that all lesson delivery methods were highly preferred by the students. Furthermore, it indicated that teachers were effectively preparing and utilizing the three methods during distance learning.

Table 4 *Preferred Lesson Delivery Methods of the Participants of the Study*

Lesson Delivery Method	Mean	*SD*	Scaled Response	Interpretation
Synchronistic	3.97	0.57	Often	Highly Preferred
Recorded Video	4.22	0.63	Often	Highly Preferred
Textual	3.80	0.58	Often	Highly Preferred

Synchronous Meetings. The findings of Harris et al. (2021) showed that live lectures were preferred over pre-recorded lectures because they were more engaging and interactive, although they were also more stressful. The advantages of live lecturers are that they provide a structured learning schedule, may aid students in managing their workloads, and they are also more interactive. Participants indicated that when pre-recorded lectures were available, note making and discussion of the contents with their friends were more prevalent than was the case with live lectures. The flexibility of the pre-recorded format was considered an attractive feature. Overall, a hybrid approach seemed to be preferred. Using a different approach, Phanse and Chavan (2021) investigated the use of pre-recorded teaching content in contrast to live online lectures. Participants preferred the pre-recorded format over Zoom lectures because they were considered to be significantly more helpful. Other findings (e.g., Moradi et al., 2018) indicated that the helpfulness of online presentations can be improved by making question and answer provisions.

Video Lectures. Research conducted by Moradi et al. (2018) on the effectiveness of teaching mathematics and physics using instructional videos indicated that participants preferred live lectures to video presentations. However, study participants indicated that a video format allowed them to learn at their own speed. An important feature of this study involved the effectiveness of an innovation introduced in the video presentations given to an intervention group. This group was presented first with a clear concept, followed by examples illustrating its application. Questions were embedded in the video presentation which, when answered, received immediate feedback. Meanwhile, the control group watched videos on random topics addressing relevant concepts and problems with no embedded questions. The incorporation of quizzes into the videos was well received by the intervention group and contributed to their superior performance. The majority of intervention participants felt that the incorporation of video instructional material was useful, as it contributed to the learning process and their preparedness to solve problems.

In a study conducted by Phanse and Chavan (2021), the effectiveness of live Zoom lectures was contrasted with pre-recorded video lectures. Students showed a preference for the latter as they gave flexibility, were convenient, and were educationally satisfying. It is suggested that the reasons contributing to the preference for pre-recorded video lectures were that they allowed students to control the content by clicking stop, play, rewind, and being able to listen to it repeatedly, which benefited students since they had better self-regulation.

Textual Lessons. These lessons refer to PowerPoint slides, documents, or any lesson materials that are written or typed. In a study by Dangle and Sumaoang (2020), learning through printed and digital modules emerged as the most preferred method for learners in rural areas in the Philippines where the Internet was not accessible for online learning. A variety of challenges were identified by students, parents, and teachers. Most students had difficulty independently answering questions in the modules, and they badly needed assistance from family members, relatives, and friends. There were also time constraints on completing work, along with continual issues with the terms used and comprehension.

Lastly, a study conducted by Dargo and Dimas (2021) showed that modular distance learning had more negative effects than positive ones. These included the absence of socialization with other students, lack of exposure to physical school activities, presence of typographical errors in some self-learning modules, the additional workload placed on working parents, and distractions at home.

Relationship of Personality Types and Preferred Lesson Delivery Methods

The study’s results on the relationships among personality traits and preferred lesson delivery methods are presented in Table 5.

Table 5 *Relationship of the Big Five Personality Traits to Learning Satisfaction*

Lesson Delivery Method	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Synchronistic	.317***	.481***	.435***	.159	.246**
Recorded Video	.075	.231*	.412***	.252**	.376***
Textual	.080	.161	.269**	.079	.324***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Extraversion had a weak positive association with the synchronous learning method ($p < .001$). This further explains why extraverted students want to interact; they are talkative, assertive and they have high amounts of emotional expressiveness. Additionally, these students prefer the synchronous method, as they enjoy being the center of attention, find it easy to make new friends, and feel energized when being around other people.

Agreeableness had a moderate positive relationship with the synchronous method ($p < .001$) and a weak positive relationship with recorded video method ($p < .05$). Agreeable students showed signs of trust, altruism, kindness, and affection, which were traits exhibited during synchronous and asynchronous classes using recorded videos. Moreover, students who enjoyed helping and contributing to the happiness of other people preferred synchronistic and recorded video lessons.

Conscientiousness and *Openness* displayed positive relationships with all three lesson delivery methods. *Conscientiousness* showed a moderate positive relationship with both the synchronous method ($p < .001$) and the recorded video methods, and a weak positive relationship with the textual delivery method ($p < .01$). On the other hand, *Openness* had weak positive relationships with the synchronous method ($p < .01$), recorded video method ($p < .001$), and textual method ($p < .001$). Students who are high in openness personality traits are imaginative and have good insight. Conscientious and open students spend time preparing, finish important task right away, pay attention to detail, enjoy having a set schedule, are very creative and open to trying new things, and are happy to think about abstract concepts. These are the reasons why they preferred all three different lesson delivery methods.

Neuroticism showed a weak positive relationship with the recorded video teaching method ($p < .01$). Lastly, students who were experiencing a lot of stress and worries about many different things may get upset easily, experience dramatic shifts in mood, and feel anxious, preferring only recorded video lessons.

Patitsa et al. (2021) found that students with higher levels of overall satisfaction with synchronous online academic learning showed higher degrees of extraversion, conscientiousness, openness, and agreeableness. They found a weak positive relationship between the traits openness and conscientiousness with synchronous online academic learning. This supports the findings of the current study, which indicated a positive relationship between agreeableness and the synchronistic method. However, unlike the findings of Audet et al. (2021), only openness was found to be strongly related to online engagement. These studies imply that there is a positive relationship between the synchronistic lesson delivery method and individuals whose dominant personality traits are extraversion, agreeableness, conscientiousness, and openness.

According to Sahanidis and Tsaknis (2021), openness and conscientiousness had a considerable positive influence on learners' satisfaction with synchronous online classes, but neuroticism had a negative impact. On account of students' tendency to perceive more stress, those with high levels of neuroticism may have the most difficulty adjusting to the ambiguous environment of online classrooms. This further explains why students with neuroticism may prefer recorded video lessons. Moreover, Audet et al. (2021) stated that students with extraversion, conscientiousness, openness, and agreeableness preferred synchronistic online delivery methods.

Cohen and Baruth (2017) discovered that it was feasible to categorize online learners into groups. Furthermore, their study found that those who preferred similar synchronous channels had similar personality traits. Borg et al. (2021) also found that students preferred online synchronous collaboration over asynchronous collaboration. Additionally, they found that when in-person collaboration was limited, the use of online synchronous collaboration was helpful, but individual differences in personality traits could have varying influences on students' perceptions of and behaviors in collaborative situations. This therefore validates that personality traits have a relationship with online learners' preferred lesson delivery method.

Predictor of Preferred Lesson Delivery Method

The linear regression analysis performed in the present study indicated that agreeableness was a significant predictor of the synchronous method ($\beta = 0.3285$, $p < .001$). The coefficient of determination ($r^2 = .322$) showed that agreeableness explained 32.20% of the variation in the synchronous method. This further reinforces the findings from Pearson's correlation, which indicated that agreeableness was positively related to the synchronous presentation method. This finding means that students who have higher levels of the agreeableness trait also have higher learning satisfaction with the synchronous lesson delivery method.

This result implies that students who have a great deal of interest in other people and can make friends easily enjoy and learn best when experiencing the synchronous lesson delivery method. The agreeableness trait predicted positive perceptions about group work, which include satisfaction (Borg et al., 2021). Relevant results were also obtained by Bhagat et al. (2019), who found that agreeableness was a predictor of student perceptions of instructor characteristics. Their findings might not be directly related to learning satisfaction with the synchronistic method. But the agreeableness trait describes people who are optimistic and like to work with others, and also have a positive attitude toward new technologies.

Difference in Preferred Lesson Delivery Method when Gender is Considered

The results of the present study showed (Table 7) that there was a significant difference ($p < .05$) in the preferred lesson delivery method when the gender of the respondents was considered. This was particularly observable in relation to the recorded video method. From this, it can be concluded that females were more satisfied with the recorded video method of information presentation than males.

Table 6 *Difference in Preferred Lesson Delivery Method When Gender Is Considered*

Lesson Delivery Method	Group	*N*	Mean	*SD*	*t*	*p*	Interpretation
Synchronistic	Male	50	3.65	0.66	-0.118	.907	Not Significant
	Female	60	3.63	0.69			
Recorded Video	Male	50	3.92	0.67	3.195	.002	Significant
	Female	60	4.30	0.58			
Textual	Male	50	3.40	0.72	1.267	.208	Not Significant
	Female	60	3.58	0.74			

Males are kinesthetic learners, while females are aural learners or those who learn through audiovisual contents. Females are also self-reflective, whereas males are more externally focused. Additionally, females have stronger self-regulation in e-learning contexts (Yu, 2021). The results reported by Islam et al. (2020) indicated that since females are more organized and diligent, they would naturally prefer pre-recorded video lectures, since these would allow them to watch and study the videos conscientiously. These observations help to explain why females' learning satisfaction with the recorded video method is significantly higher than males.

Conclusion

The data obtained in this study led to the conclusion that personality traits are associated with the lesson delivery methods preferred by clients. The results showed that participants had high levels of agreeableness, and average levels of extraversion, conscientiousness, neuroticism, and openness. The synchronous, recorded video, and textual methods all received very good evaluations. There was a significant relationship between personality traits and preferred learning methods among students. The agreeableness trait appeared to be a significant predictor of learning satisfaction, particularly when the synchronous teaching method was used. There was a significant difference in the learning satisfaction of males and females with the recorded video method; females were more satisfied with the recorded video method than males.

Recommendation

Based on the conclusion, the following recommendations are proposed; teachers need to identify the personality traits of their students so that they can offer the lesson delivery methods preferred by each student. Teachers of classes that are predominantly composed of female students should consider utilizing recorded videos instead of synchronous classes and textual modules. Students could be more motivated to learn using their preferred lesson delivery method if they knew their own personality traits, their strengths and weaknesses, and their learning styles and study habits. Future researchers might consider having grade 7 to 12 high school students as potential participants, so that the study findings could be more generalizable. Furthermore, future researchers may use learning satisfaction as the primary variable, because if students were more satisfied with their classes, they would perform better and engage more readily in class activities.

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Financial Self-Efficacy, Performance, and Happiness Index of Teachers in Saraburi Province, Thailand: Basis for an Intervention Program[1]

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Abstract

In this descriptive correlational study, significant relationships were investigated among financial self-efficacy, teaching performance, and a happiness index. Teachers' financial challenges were also examined. The participants in the study were teachers in both private schools and government schools in the 13 districts of Saraburi Province, Thailand. A self-constructed survey questionnaire was employed with five dimensions for each variable. A two-stage sampling design was applied to acquire the sample population used in the study. The data collected from 615 respondents were analyzed using frequency, mean, percentage, one-way Analysis of Variance, and Pearson's correlation. The data revealed significant relationships among the three variables: Financial self-efficacy, teaching performance, and the happiness index. The results also showed teachers' top three financial challenges: (a) they were currently in debt, (b) they did not treat savings as an expense, and (c) they lacked emergency funds. An intervention program was suggested that focused on professional development and creation of a Financial Counseling Center for Teachers to increase their financial self-efficacy.

Keywords: *Financial self-efficacy, performance, happiness index*

Introduction

The teaching career is considered a highly stressful profession (Newberry & Allsop, 2017) on account of possible stressors such as student misconduct, lack of enthusiasm, diverse student populations, lack of administrative support, and potential workplace conflicts (Skaalvik & Skaalvik, 2015). In the Netherlands, one out of five teachers have experienced some signs of stress, and higher workloads were reported than for other working professionals (Hoffmann-Burdzinska & Rutkowska, 2015). Aside from these challenges in their careers, the financial outlook for teachers is an important dimension that may significantly impact their teaching performance and well-being. For instance, Spector (2020) highlighted that among 2,000 plus San Francisco teachers surveyed, greater economic stress was experienced compared to workers generally. Moreover, teachers' level of financial anxiety predicted behaviors such as attendance deficits and their likelihood of leaving the profession. Creditor indebtedness is a continuing concern that affects teacher performance, too (Acedillo, 2018). Further, teachers' financial well-being is associated with children's positive emotional expressions and classroom behaviors (King et al., 2016).

The actions of financially literate individuals do not necessarily mean they will demonstrate good financial behaviors (West, 2012). Financial education alone or knowledge about money management is insufficient. Attitudes towards and behavior concerning financial issues are of greater importance. Teachers are considered key contributors in shaping students' lives, but facing economic hardships could impact their wellbeing and performance as teachers (Asino, 2017).

In this paper, the relationships between financial self-efficacy, teaching performance, and a happiness index were investigated together with the financial challenges faced by teachers. The strategies, concepts, and constructs available were explored related to improving their financial literacy by using the self-efficacy and goal-setting theories of motivation.

[1] This study is based on data collected during the author's doctoral studies at Ifugao State University in 2020.
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Literature Review

The High Debt Rate of Teachers

A main trigger of financial stress is chronic debt. A study conducted by the Bank of Thailand (2013) indicated that the financial literacy level of Thai teachers was slightly lower than the average score. The finding suggests that socio-demographic attributes, particularly income and education, have the highest positive effect on financial literacy scores. Some reasons why Thai teachers are in debt are their lack of financial knowledge, low salaries, easy access to credit, and a need to maintain their lifestyles. The huge debt incurred by teaching personnel was also due to rising cost of living and lack of financial discipline (Tangprasert, 2020). To address this issue, the Teachers Civil Service Commission set-up a revolving fund for teachers allowing them to borrow money to pay their outstanding debts while charging low interest. However, this did not address the real causes of the problem, including perceptions regarding lifestyle maintenance (Kenan Foundation Asia, 2020). Some are worried that teachers will focus more on earning extra money to pay their debts instead of prioritizing their teaching, which will inevitably impact the quality of the Thai education system (Bangkok Post, 2016).

In the Philippines, the reason why teachers have small take-home pay is because they have no proper money management, and borrowing money from loan sharks has become a habit. The Philippine Regulation Commission reported more than 500 pending cases filed by lending institutions against teachers (Gulf News, 2019). A surprising one-fourth of the teachers lose half of their gross income to deductions for loan payments. Because of this, incurring too much debt among Filipino teachers may have a significant impact on the overall public education system (Ferrer, 2017). Additionally, some 26,000 teachers have not enjoyed their retirement benefits because they need to settle their debts (Fausto, 2019).

Financial Self-Efficacy

Self-efficacy refers to a strong conviction that inherent abilities will translate into success in a given circumstance. People with a strong sense of self-efficacy are more committed to their interests, quickly bounce back during disappointments, and see difficulties as tasks to be mastered (Cherry, 2020). In this study, Bandura's (1997, p. 3) definition of self-efficacy was used, which refers to "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments." Studies show that financial self-efficacy is a predictor of money behavior. For example, people with higher financial self-efficacy tend to have investment and savings products, while lower financial self-efficacy is connected with debt-related products (Farrell et al., 2016).

However, self-efficacy does not refer to one's skills or knowledge. While financial self-efficacy is an important concept in making sound decisions and applying financial knowledge, many positive psychology initiatives are needed to ensure adoption of positive financial behaviors (Tharp, 2018).

Teaching Performance

In order to achieve its goals, an organization sets expectations and performance indicators (Rumondor et al., 2016). Organizations need to evaluate their performance to increase productivity and maintain ethical conduct (Güney, 2014). A teacher's performance encompasses how one behaves in the teaching-learning environment and carries out assigned tasks (Duze, 2012). Teachers' performances are their most meaningful contribution in the educational process, as they interpret and implement significant policies.

Previous studies conducted in San Francisco have indicated that younger teachers can experience more financial worries compared with a national sample of employed adults. This economic anxiety had significant impacts on their performance, retention, and they tended to have more negative attitudes towards their work (Dizon-Ross et al., 2019).

Financial challenges can contribute to stress, thus lowering performance. An individual with financial problems experiences a lack of concentration, resulting in poor quality or quantity of work. Consequently, indebtedness to creditors by teachers is a continuing concern, as this indirectly affects their performance (Acedillo, 2018). Research also has shown that teachers' happiness and well-being are correlated with students' well-being and performance (Roffey, 2012).

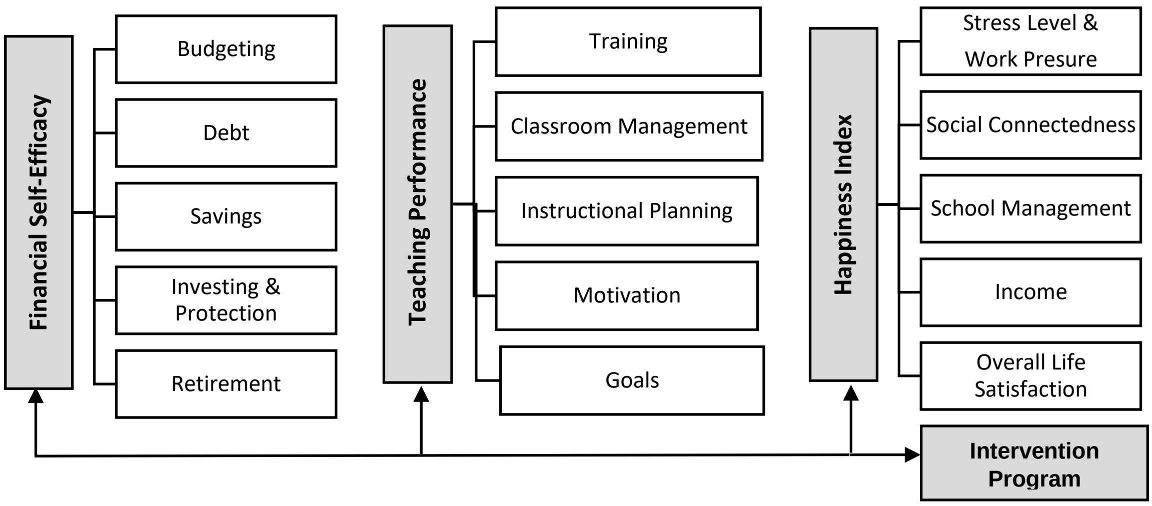
Happiness Index

The Happiness Index measures life satisfaction, the feeling of happiness, and other happiness domains like psychological well-being, social support, education, and material well-being that refers to financial security and meeting basic needs (Happiness Alliance, 2014). Investigating teachers' happiness in the context of financial self-efficacy has become an integral part of any educational reform. Teacher happiness is an important part of predicting student academic success (Aziz, et al., 2020; Tadić et al., 2013). Furthermore, other studies suggest that teacher happiness can predict student happiness, influencs student learning (Duckworth et al., 2009), and affect student learning motivation (Sutton & Wheatley, 2003).

Is there a significant relationship between happiness and financial management? This does not necessarily follow. In fact, despite being topped in the United Nation's World Happiness Index, the people in Finland may need help managing their finances, as Finns are becoming less disciplined in their spending habits, resulting in household debt doubling in the last two decades (Bloomberg News, 2020). However, a study conducted by the insurer Aviva revealed that overall happiness, wellbeing, and self-esteem are influenced by our sense of financial control, and not by how much we deposit in the bank every month. This means a strong connection exists between financial behavior, self-esteem, and happiness, and people with sensible financial plans in place are happier and have a stronger sense of financial well-being (Smithers, 2010). In the context of teaching, research has shown that teacher happiness and well-being are correlated with students' well-being and performance (Roffey, 2012).

The aim of this study was to explore the significant relationships among financial self-efficacy, teaching performance, and the happiness index of teachers in Saraburi Province, Thailand.

Figure 1 *Conceptual Framework*



Research Objectives

In this study, the current financial capabilities of teachers were investigated, focusing on three key variables: Financial self-efficacy, teaching performance, and the happiness index of selected teachers in Saraburi Province, Thailand. Answers were sought to the following research questions:

1. What is the level of financial self-efficacy of teachers in terms of budgeting, debt, savings, investing and protection, and retirement?
2. Is there a significant difference between the level of financial self-efficacy of teachers in terms of dimension and profile?
3. What is the level of performance of teachers in terms of training, classroom management, instructional planning, goals, and motivation?
4. Is there a significant difference between the level of performance of teachers in terms of dimension and profile?

5. What is the level of happiness index of teachers in terms of stress level and work pressure, social connection, school management, income, and overall life satisfaction?
6. Is there a significant difference between the level of happiness index of teachers in terms of dimension and profile?
7. Is there a significant relationship between financial self-efficacy and performance, financial self-efficacy and the happiness index, performance and the happiness index?
8. What are the common financial problems encountered by most teachers in terms of managing their finances?

Null Hypotheses

In formulating the hypotheses used, the researchers were interested in find out the effects of financial self-efficacy on teachers' performance and happiness working in Saraburi Province, Thailand.

1. There is no significant difference between the level of financial self-efficacy of teachers in terms of dimension and profile.
2. There is no significant difference between the level of performance of teachers in terms of dimension and profile.
3. There is no significant difference between the level of happiness of teachers in terms of dimension and profile.
4. There is no significant relationship between (a) financial self-efficacy and performance, (b) financial self-efficacy and the happiness index, and (c) performance and the happiness index.

Methodology

This study utilized a quantitative research design. The survey questionnaire was administered to selected teachers and analyzed using the descriptive correlational method. A five-point Likert scale was used to measure the constructs as specified in the conceptual research model. To validate and rate the questionnaire, three experts evaluated the instrument using item-objective congruence.

A reliability test subsequently was run using SPSS to determine the instrument's reliability before being administered to the target population. A pilot study was undertaken with the questionnaire being administered to at least 10% of the sample population, whose members did not include the respondents used in the body of the research. Cronbach's alpha was calculated to measure internal consistency among the 105 items in the instrument. The result showed that the questionnaire reached an acceptable reliability value of $\propto = .98$, with all items worthy of retention.

Respondents

The respondents were teachers in Saraburi Province, Thailand. A cluster sampling technique was used to select the respondents using a two-stage sampling design. The districts were grouped as clusters, and samples of respondents were randomly selected from a particular cluster. The sample consisted of Thai and foreign teachers teaching at various levels, from kindergarten to postgraduate levels, from six private schools and seven government schools from each of the districts in Saraburi Province. The purpose of the study was explained to the respondents and their informed consent was secured. Participating in the study was voluntary, and the information gathered was kept confidential and used only for this study.

Results and Discussion

In the subsequent section of this study, the findings are detailed related to the three variables: Financial self-efficacy, teaching performance, and the happiness index of teachers. The survey questionnaire was administered to 615 respondents drawn from a population of 800 as specified by Slovin's formula. A pilot study was conducted on 62 respondents outside the main sample group. Significant relationships were found involving the three variables: Financial self-efficacy, teaching performance, and the happiness index, among the teachers surveyed.

Demographic Profile of Respondents

Table 1 shows that many respondents were below 26 years of age (24.60%); most of the respondents were female (59.20%). Moreover, respondents with bachelor's degree predominated (70.90%), followed by holders of master's degrees or doctoral qualifications. Interestingly, many respondents had 1–5 years of teaching (35.10%), followed by those with a 6–10 years of teaching experience (19.70%); few had more than 20 years of teaching. In terms of the type of school in the province, the majority of the respondents were from government schools (87.00 %), as indicated in Table 1. A majority of respondents were teaching in middle and high school (40.2%), followed closely by those operating at the primary level (35.6%). A few were working at the university level. It is not surprising that District 6 (Muaeng Saraburi), in the center of the Province, had the largest number of respondents.

Table 1 *Demographic Information (N = 615)*

Constructs	Items	Frequency	Percent	Constructs	Items	Frequency	Percent
Age	Below 26	151	24.60	***Nationality***	Filipino	199	32.40
	26–30 years	106	17.20		Thai	319	51.90
	31–35 years	93	15.10		Malaysian	13	2.10
	36–40 years	86	14.00		Indonesian	4	.70
	41–45 years	88	14.30		Indian	11	1.80
	45+ years	91	14.80		Chinese	5	.80
Gender	Male	251	40.80		American	7	1.10
	Female	364	59.20		Others	57	9.30
Marital Status	Single	298	48.50	***Grade***	Kindergarten	85	13.8
	Married	261	42.40		Primary	219	35.6
	Separated	56	9.10		Middle/high sch	247	40.2
Educational Background	Bachelor's	436	70.90		University	51	8.3
	Master's	156	25.40		Postgraduate	13	2.1
	Doctoral	23	3.70	***District***	District 1	10	1.60
Salary Scale	< 10k THB	66	10.70		District 2	56	9.10
	10–15k THB	134	21.80		District 3	10	1.60
	16–20k THB	162	26.30		District 4	31	5.00
	21–25k THB	81	13.20		District 5	87	14.10
	> 25k THB	172	28.00		District 6	163	26.50
Years of Teaching	< 1 year	60	9.80		District 7	8	1.30
	1–5 years	216	35.10		District 8	47	7.60
	6–10 years	121	19.70		District 9	7	1.10
	11–15 years	99	16.10		District 10	14	2.30
	16–20 years	69	11.20		District 11	74	12.00
	>20 years	50	8.10		District 12	54	8.80
School Type	Government	535	87.00				
	Private	80	13.00				

Financial Self-Efficacy

Respondents' perceptions of financial self-efficacy in terms of the dimensions selected (budgeting, debt, savings, investing and protection, retirement) were analyzed by one-way analysis of variance (ANOVA). The data showed a significant difference among the financial self-efficacy dimensions (F = 49.22, p < .001), which led to the rejection of the null hypothesis.

The respondents' perceptions of financial self-efficacy in terms of age are shown in Table 2. Using one-way ANOVA, the data show significant differences in budgeting, debt, and savings (p < .001). No significant differences were found in investing, protection, and retirement practices. Interestingly, a specific group like the young adults tended to have less knowledge and awareness when it comes to financial matters (Consumer Research and Resource Centre, 2012). Over half of our sample population fell into the relatively young age group.

Table 2 *Comparisons of Financial Self-Efficacy Perceptions in Terms of the Age of Respondents*

Dimensions	*F*	*p*-value	Remarks	Decision
Budgeting	5.82	< .001	Significant	Reject the null hypothesis
Debt	7.14	< .001	Significant	Reject the null hypothesis
Savings	4.90	< .001	Significant	Reject the null hypothesis
Investing & Protection	2.04	.071	Not Significant	Accept the null hypothesis
Retirement	0.56	.732	Not Significant	Accept the null hypothesis

It is worth considering the study's implications, which indicated that the younger population had a lower level of financial self-efficacy compared with other age groups. Unsurprisingly, many respondents from the age bracket below 26 years old had similar perceptions towards investing, protection, and retirement. Young people usually do not feel the need to have insurance, investment, or to save for their retirement. Therefore, the earlier that they are exposed to financial literacy, the more likely that they will be open and receptive to adopting proper money management strategies.

Teacher Performance

A comparison of respondents' perceptions of teacher performance in terms of age was explored using one-way ANOVA. Data in Table 3 indicates that significant differences ($p < .001$) were found in terms of training, classroom management, and instructional planning. This led to rejection of the null hypothesis. Tukey's post hoc test revealed significant differences in the dimensions of training with classroom management and instructional planning ($p < .001$). Classroom management also exhibited a significant difference with goals and motivation ($p < .001$). Lastly, instructional planning also showed a significant difference with goals ($p < .001$) and motivation ($p = .002$). The results led to the rejection of the null hypothesis.

There was also a significant difference in perceptions of teacher performance in terms of the age of respondents, who felt that age might affect their performance as a teacher, particularly in training, classroom management, and instructional planning. Tukey's post hoc test further revealed that the perceptions of the respondents aged 31–35 years old differed significantly from respondents aged below 26 ($p = .041$) and 41–45 years old ($p = .028$) in terms of training. In addition, respondents aged below 26 differed significantly from those aged 36–40 ($p = .008$) regarding their perceptions of classroom management. No significant differences were found relative to the respondents' perceptions on goals and motivation. The results obtained led to the rejection of the null hypothesis.

Table 3 *Comparisons of Teacher Performance Perceptions in Terms of the Age of Respondents*

Dimensions	*F*	*p*-value	Remarks	Decision
Training	5.82	< .001	Significant	Reject the null hypothesis
Classroom Management	7.14	< .001	Significant	Reject the null hypothesis
Instructional Planning	4.90	< .001	Significant	Reject the null hypothesis
Goals	2.04	.071	Not Significant	Accept the null hypothesis
Motivation	0.56	.732	Not Significant	Accept the null hypothesis

Comparisons of teachers' perceptions of their performance in terms of gender are shown in Table 4. An independent samples *t*-test was used to analyze the data; the results obtained suggested a significant difference between male and female respondents in their perceptions of classroom management ($p = .031$). No significant differences were found in other dimensions, namely, training, instructional planning, goals, and motivation. The significant result obtained regarding perceptions of classroom management led to rejection of the null hypothesis.

Interestingly, respondents perceived that gender made no significant difference in their teaching performance. The results of this study differed from a study conducted on 126 Pakistani teachers, which found that gender affected classroom management, where female teachers exhibited more classroom management skills than their male counterparts. Classroom management is a challenging and complex task that demands knowledge and skills from teachers (Ahmed et al., 2018). The implication is that school administrators are encouraged to rethink how to make interventions in teacher training to counteract these gender differentials.

Table 4 *Comparisons of Teacher Performance Perceptions in Terms of the Gender of Respondents*

Dimensions	*t*	*p*-value	Remarks	Decision
Training	0.50	.615	Not Significant	Accept the null hypothesis
Classroom Management	-2.16	.031	Significant	Reject the null hypothesis
Instructional Planning	-1.88	.061	Not Significant	Accept the null hypothesis
Goals	-0.88	.377	Not Significant	Accept the null hypothesis
Motivation	-1.32	.188	Not Significant	Accept the null hypothesis

Level of Happiness Index of Teachers in Relation to Dimensions and Demographic Information

One-way ANOVA showed that a significant difference existed between the happiness index data and perceptions in terms of the dimensions considered (F = 4.09, p = .003). Tukey's post hoc test revealed that the perceptions of the respondents on social connectedness differed significantly from the perceptions of stress and pressure (p = .027) and income and benefits (p = .001). The data obtained led to rejection of the null hypothesis.

The results of the study showed that respondents had different perceptions when comparing the happiness index in terms of the dimensions considered. In the sample population, all five dimensions had implications for the overall happiness index scores obtained, and they significantly enhanced development of positive interpersonal relationships with co-teachers and their immediate supervisors. This may be challenging in some private and international schools where the school administration prefers hiring international teachers. It is essential to have a healthy awareness and understanding of Thai culture in order to promote the creation of a positive environment necessary to attain higher levels of happiness amongst teachers. Following improvements in cultural awareness and understanding, happy teachers can develop and better maintain supportive social networks and make sounder choices in life.

Correlations Involving the Three Variables

The relationships between financial self-efficacy, teaching performance, and the happiness index are shown in Table 5. Using Pearson's correlation, a strong positive correlation was indicated between financial self-efficacy and performance (p < .001). Financial self-efficacy and the happiness index also exhibited a similar strong positive correlation. These results led to the rejection of the null hypothesis.

The strong correlation means that these three variables (financial self-efficacy, teacher performance, and the happiness index) are connected. An individual's confidence to manage financial resources is important in leading to positive behavior in money management. In support of this, the National Financial Capability Study found that financial self-efficacy was connected with the likelihood of having savings (Babiarz & Robb, 2014). Moreover, since employment is a source of income essential for meeting the basic needs of life, it can ultimately be the avenue leading to wealth and other elements of associated with happiness, such as joy, meaningfulness, and well-being (Hoffmann-Burdzińska & Rutkowska, 2015).

Table 5 *Relationship Between Financial Self-Efficacy with Teacher Performance and Happiness Index*

Feature	Financial Self-Efficacy		Remarks	Decision
	R	*p*-value		
Teacher Performance	.71	< .001	Significant	Reject the null hypothesis
Happiness Index	.69	< .001	Significant	Reject the null hypothesis

** Correlation is significant at the .01 level (2-tailed).

The results obtained in this study demonstrate that financial self-efficacy is correlated with teacher performance and the happiness index. Prior published results by the lead author relating to the same group, based on interviews, showed that some teachers were buried in debt and their teaching careers have been affected due to financial mismanagement (Amparo, 2017).

Hence, school administrators may address this aspect by addressing the financial well-being of their teachers; this would be in addition to regular academic training and normal professional development programs for teachers. If we want our teachers to be happy and improve their performance, we should integrate financial management and review the incentive policies adopted to support them. Financial or non-financial incentives could be offered; a bonus is an example of a financial incentive where money is given to teachers entitled to receive it. Some examples of non-financial incentives are verbal or written praise, granting promotions, informal acknowledgments, and awards.

Analysis of the relationship between performance and the happiness index using Pearson's correlation showed a significant strong positive correlation between performance and the happiness index (R = .76, p < .001). The significant result led to rejection of the null hypothesis.

Previous studies have highlighted the relationship between happiness and performance. For instance, employees who are happy in their institutions are also generally happy to serve their customers (Harris et al., 2016). Moreover, happy workers perform more productively and are better organizational citizens (Bockerman & Ilmakunnas, 2012). In addition, happier people are more likely to be hired, get promoted, have higher incomes (De Neve & Oswald, 2012), and seem to have better social relationships than people who are less happy (Diener et al., 2015).

The study showed a correlation between teacher performance and the happiness index leading to a boost in their classroom performance as teachers. The results indicated that happy teachers had more confidence, self-esteem, and were more productive. People who are confident and have high self-esteem can handle adverse conditions better than those without them. This finding is crucial not just for teachers, but also for school administrators. It is essential to foster a healthy working environment where teachers are happy, satisfied, and feel supported as teachers in managing work challenges and other financial issues that may confront them.

Common Financial Problems of Respondents

The common problems encountered by teachers in terms of managing finances are shown in Table 6. The results of the study indicated that the top three common problems of teachers were: (a) teachers are in debt (38.21%), (b) teachers do not treat savings as an expense (37.07%), and (c) teachers have no emergency fund (35.12%). These top three common money problems are connected. Individuals may find it challenging to put aside emergency funds if they are in debt. Moreover, a person could also be in debt if savings are not treated as an expense, which again could affect emergency fund availability. Those who find dealing with their financial situation stressful are more likely to struggle to pay bills each month, use their credit cards to pay for monthly essentials, and carry a balance on their credit cards from month to month (Price Waterhouse Coopers, 2017). Thus, teachers may experience improved financial self-awareness and saving behavior with the proper education and encouragement.

The last section of the survey questionnaire asked about common money problems. In that section, the respondents gave additional comments and feedback. Out of 615 respondents, 57 comments were collected from the electronic survey, both in English and Thai. One financial concern brought by foreign teachers was that they did not receive a full-year's salary. These teachers were under a 10-month contract and did not have salary during the two months' summer period. Some respondents had lost their jobs or were still unemployed on account of the COVID-19 pandemic crisis. In addition, some teachers prioritized buying an insurance policy in order to protect themselves in case of illnesses and other emergencies, which had the potential to lead to financial stresses occurring at a later time.

On top of these comments, unwanted debt may be incurred by teachers through the misuse of credit cards. Additional contributing factors for indebtedness were that salaries were insufficient for a reasonable living, online impulse buying occurred on unnecessary things, money was lent to friends, or excessive generosity was extended towards family members. These are the reasons why most respondents had no savings at all. The lack of emergency funds was the last common financial challenge among teachers. Due to the pandemic crisis, respondents slowly realized the importance of emergency funds and insurance. Additionally, for foreign teachers, visa processing fees and work permits were also usually personally shouldered, which was an additional burden for them.

Table 6 *Common Problems Encountered in Terms of Managing Finances*

Common Problems	*Frequency*	*Percent*
I am currently in debt.	235	38.21
I don't have clear financial goals.	185	30.08
I have been duped in a scam before.	196	31.87
I have no retirement plan.	208	33.82
I have no proper budgeting plan.	191	31.22
I don't treat savings as an expense.	228	37.07
I have no emergency fund.	216	35.12

Conclusions

In this study, the following conclusions were made. The level of financial self-efficacy of respondents was average. The sample participants in this study generally understood the significant impact of financial education on their well-being. However, financial knowledge does not automatically translate into good financial behavior. The results obtained showed significant differences in the level of financial self-efficacy in terms of various dimensions. Moreover, the demographic characteristics of participants, such as gender and location, did not significantly affect financial self-efficacy.

The level of respondents' teaching performance was relatively high compared with financial self-efficacy. The respondents were highly aware of their professional duties and responsibilities as teachers. There was a significant difference between the level of performance of teachers in terms of this dimension. Moreover, participant demographic characteristics such as gender, marital status, and type of school did not make any significant difference in their level of performance. The level attained on the happiness index was average. Most participants perceived that social connectedness was linked to happiness in the workplace. Moreover, the respondents perceived that school management, stress, and pressure could affect their happiness and general well-being.

There was a significant difference between teachers' response levels on the happiness index. Further, demographic characteristics such as gender, type of school, and district location of the respondents did not affect their scores on the happiness index. There was a significant relationship among the three variables: Financial self-efficacy, teacher performance, and the happiness index. The common financial challenges respondents encountered involved being in debt, not treating savings as an expense, and lack of emergency funds. There is a need to establish a financial training center and professional development or seminar series for teachers and school administrators. In addition, the salaries offered by schools should be at least sufficient to cover teachers' basic needs. This consideration is essential, especially for new foreign teachers shouldering visa fees and work permit expenses.

Limitations and Recommendations

This study was limited to one province in Thailand. Future research may include teachers from other provinces to get a more comprehensive idea of the financial self-efficacy of teachers, and could also trial specific interventions programs to address the issues encountered. Based on the findings of this study, school administrators may revisit salary schedules, particularly those of foreign teachers to ensure they are well-compensated. School administrators may start incorporating financial education in regular professional training. However, reforms beyond just financial education are needed. School leaders may create a financial counseling center with practical training to promote equity and satisfaction, eventually leading to increased performance and greater happiness. This can be done by collaborating with small creditors, lenders, bank representatives, and mutual fund managers.

Additionally, it is highly recommended that school administrators explore possible ways where teachers can earn extra money aside from their regular pay. One avenue might involve establishing an after-school tutoring program for academically at-risk students. Through this initiative, teachers can have sidelines that are still related to their professional work.

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The Motives for Job-Hopping Among Millennial Employees in Bangkok: A Confirmatory Factors Analysis to Expand the Escape and Advancement Motives

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Abstract

The objective of this research was to study job-hopping motives among millennial employees in Bangkok. Data were collected from 528 millennial workers and analyzed using a second-order confirmatory factor analysis. The analysis on the job-hopping motives among employees in Bangkok showed that the model was consistent with the empirical data based on the goodness-of-fit indices, which included $\chi2$ = 49.369, *df* = 24, *p* = .0017, RMSEA = .045, CFI = .979, TLI = .951, and SRMR = .031. These findings indicated that the motivation behind job-hopping consisted of three factors, namely the escape motive, advancement motive, and a new motive category. As for the new motives, the results indicated that millennial employees may switch jobs due to several reasons, such as considering the convenience of commuting and lodging, feeling fatigued with their current employment, or having a desire to start their own business. These results may be used in beneficial ways by organizations to develop human resource strategies to retain millennial employees.

Keywords: *Job-hopping, validation, millennial employees*

Introduction

Millennial workers have a tendency to switch jobs frequently. This generation consists of individuals who were born between 1980 and 2000 (Tetteh et al., 2021). Asghar (2014) found that millennials have unique and non-conventional beliefs, career goals, and motivations. Ivanovic and Ivancevic (2019) confirmed that the likelihood of millennials switching jobs increased among the younger generation. Generation Y is the group of millennials with the highest percentage of individuals who planned to leave their current job and with a likelihood of changing employers in the next two years. This trend of job-hopping (frequent job changes) among workers is likely to continue in the coming years, as the job market remains competitive and workers seek new opportunities for career growth and fulfillment.

In Thailand, the Research Center for Social and Business Development released survey results on the lifestyles and quality of life of millennial employees in Bangkok in 2018. The survey found that 55.2% of employees had changed jobs twice on average, with an average tenure of 3 years and 6 months. The millennials had a shorter average tenure of 2 years and 5 months compared to Generation X, which had an average tenure of 5 years and 5 months. This indicates a changing trend in the working culture of different generations, where younger generations tend to change jobs frequently to meet their own needs (aSearcher, 2023).

Job-hopping refers to the act of frequently changing jobs within a short period of time. This trend has become increasingly common among employees in recent years. According to a study conducted by the Bureau of Labor Statistics, the average tenure of an employee in a job was 4.1 years (Bureau of Labor Statistics, 2022). However, younger generations are known for job-hopping more frequently than their predecessors. Job-hopping is a result of various factors. One of the primary reasons is a shift in the work culture, where employees prioritize their personal growth and job satisfaction over job security and longevity (Steenackers & Guerry, 2016; Siew et al., 2023). Additionally, the emergence of the gig economy and the rise of contract work have contributed to the trend of job-hopping. This has led to a decline in employer loyalty towards their employees, and as a result, employees have started to look out for themselves (Best, 2017).

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The problem with job-hopping is that it can have a negative impact on an individual's career growth and long-term financial stability. Job-hopping can create gaps in an employee's resume, which can be perceived negatively by potential employers. Furthermore, the lack of longevity in a job can prevent an individual from acquiring specialized skills and knowledge, which can be detrimental to their career growth in the long run (Rasli et al., 2017; Zahari & Puteh, 2023). Moreover, job-hopping can lead to financial instability, as the individual may not have a steady income stream (Iftakhar, 2022). A challenge of job-hopping is for employers to retain their employees. Employers need to invest in creating a positive work culture that fosters employee engagement and loyalty (Kinasih & Amin, 2022; Zahari & Puteh, 2023).

Lake et al. (2018) conducted a study on the reasons behind job-hopping among employees; his instrument was developed and validated using responses from 221 students and 1,528 adults. In this study, it was found that the motivating factors for job-hopping were the escape motive and the advancement motive. However, it should be noted that in the study of employee behavior among millennials in Bangkok, the reasons for job-hopping may differ based on individual and societal factors. From the aforementioned, the present researchers studied job-hopping motives in order to use the knowledge gained for the benefit of managers, especially in the area of human resource management, in an effort to retain talented employees.

Literature Review

Lake et al. (2018) employed an inductive methodology approach and discovered two reasons behind job-hopping. One of these reasons, termed the "escape motive," was drawn from previous studies on organizational turnover, while the other, called the "advancement motive," was based on findings from the field of career psychology.

Escape Motives

The escape motive, as defined by Lake et al. (2018), referred to the desire of job hoppers to change jobs frequently in order to escape from unpleasant work environments. This motive shows similarities to the hobo syndrome (Ghiselli, 1974; Hall et al., 2022), where individuals moved from one job to another without any logical or organized reason. Hall et al. (2022) and Nguyen and Le (2022) found that negative affectivity, such as neuroticism, personality characteristics, and environmental factors, may have been related to the hobo syndrome and the escape motive. People with higher neuroticism scores tended to have negative perceptions of themselves and the world, which could have increased the likelihood of them leaving their job. It is important to note that motives are situational and time-bound, and are not identical to personality traits. Instead, motives and personality played different but important roles in regulating behavior and outcomes in life.

According to Lake et al. (2018), the escape motive was linked to impulsivity and negative affect, and was negatively associated with persistence, job involvement, time taken to decide to leave a job, and career self-efficacy. However, the hobo syndrome (and therefore the escape motive) was not directly related to impulsivity. Instead, individuals classified as hobos tended to score lower on the affective turnover motive and higher on other types of turnover motives, such as behavioral, contractual, and constituent motives. These motives were consistent with the impulsive quitter and conditional quitter profiles, which were characterized by negative feelings toward organizations and the tendency to leave one job without having another offer lined up (Nguyen & Le, 2022; Kerckhofs et al., 2022).

Advancement Motives

Lake et al. (2018) defined the advancement motive as the intention to switch jobs frequently in order to advance one's career. This type of motive was often referred to in the popular press as a positive outcome of changing jobs frequently. Guo and Hou (2022) suggested that people who frequently switched jobs did so to advance their careers, increase engagement in their work, and acquire new skills. It has been traditionally believed that turnover is influenced by tangible individual and/or organizational rewards. For instance, Brannon et al. (2007) and Steil et al. (2020) found that employees who perceived greater career opportunities in their organizations were less likely to have intentions to leave.

Lake et al. (2018) suggested that the advancement motive was driven by personal ambition, initiative, and drive, which implied that individuals left their current job to advance their careers. This concept was supported by the work of Kost et al. (2020), who argued that upward mobility as a component of career motivation involved a desire for advancement, recognition, dominance, money, and the ability to delay gratification. Lake et al. (2018) revealed that the advancement motive was linked to persistence, self-directed career management, protean career values, a boundaryless mindset, and a kaleidoscope career, while it was negatively associated with impulsivity and normative organizational commitment. The quitters, who left their jobs to advance their careers or receive better compensation, usually had another job lined up before quitting. Individuals with a high score on the advance motive did not necessarily engage in job-hopping behavior compared to those with the escape motive. Instead, it was interaction between the advance motive and environmental variables that fulfilled their needs and drove their decisions to leave their current jobs (Nguyen & Le, 2022).

New Motives

Several factors have been identified as contributing to an individual's decision to change jobs. One of the most significant factors was the benefits provided by the company (Lake et al., 2018; Hassan et al., 2020). These benefits included health insurance, retirement plans, and vacation time, which were highly valued by employees. A lack of these benefits might have prompted them to seek new employment opportunities.

Another factor that could have contributed to job-hopping was the distance between an employee's accommodation and their workplace. Commuting was a stressful and time-consuming experience that led to the dissatisfaction experienced by some, and that ultimately led to job-hopping (Ngotngamwong, 2019). Studies showed that longer commute times had negative effects on an individual's mental and physical health (Clark et al., 2020). Commuting also had a negative impact on work-life balance, as employees struggled to balance work demands with personal responsibilities such as childcare and household chores (Ngotngamwong, 2019; Clark et al., 2020).

Some individuals chose to leave their current job to pursue self-employment or entrepreneurship opportunities (Koster & Andersson, 2018). The reason for job-hopping was the desire for more autonomy and control over one's work life. According to a study conducted by Lanivich et al. (2021), individuals who had an entrepreneurial mindset tended to seek out more autonomy in their work. They may have felt limited by the constraints of working for a company, and desired to pursue their own ideas and projects. Job-hopping allowed individuals to explore different opportunities and gain diverse experiences, which could be valuable in their future entrepreneurial endeavors.

Another reason for job-hopping was the desire for greater financial gain. Individuals who were pursuing self-employment or entrepreneurship may have felt that they could achieve greater financial success through their own ventures rather than working for a company (Rodriguez et al., 2019). As such, they may have been more likely to job-hop in search of opportunities that could provide them with the financial resources to enable them to pursue their entrepreneurial aspirations.

Research Methodology

This research was a quantitative study and involved the development of research instruments, data collection, and data analysis; details are given in the following sections.

Population and Sample

The population consisted of employees who worked within the Bangkok metropolitan area, and the exact number was unknown. Therefore, a sample size of at least 385 individuals was required according to the guidelines for determining sample size for confirmatory factor analysis, which was 10 to 20 samples per parameter (Hair et al., 2019). There were 11 parameters in our research plan, so the sample size fell between 110 to 220 individuals. However, in this study, the researchers used a sample group of 528 individuals, which was appropriate and sufficient to make references to the broader population.

The sample selected consisted of females (58.3%), while males comprised the remaining 41.7%. The age of the sample ranged from 20 to 40 years old, with the highest percentage being between 35–40 years old (39.8%), followed by 30–34 years old (26.5%), 25–29 years old (17.8%), and 20–24 years old (15.9%). In terms of education level, 39.4% had completed a bachelor's degree, 38.6% had a diploma, 17.0% had completed high school, 4.5% had an education level higher than a bachelor's degree, and the remaining 0.4% had completed primary education. With regard to job changes, within the past 2 years, 36.4% of the sample had changed jobs two times, while 18.2% had changed jobs three times, and the rest had changed jobs once.

Research Instrument

The research instrument that was used was a questionnaire consisting of three parts. Part 1 contained general information about the sample group. Part 2 consisted of 11 job-hopping motive items, including the escape motive and advancement motive. These items were developed based on Lake et al. (2018). The researchers reviewed other literature to create new questions under the name "New Motives." Part 3 was an open-ended question that provided respondents with the opportunity to express their opinions on the reasons for job-hopping.

The developed items were evaluated for content validity by three experts, using the Index of Content Validity approach, with all items meeting a minimum score of .67. However, for some items, the researchers made adjustments based on the experts' recommendations to improve the accuracy and completeness of the questions. Then the questionnaire was tested by conducting a tryout with a sample of 40 participants to assess its reliability by calculating the Cronbach's alpha coefficient. The results showed that the overall reliability of the questionnaire was .91, while the reliability of each subscale ranged from .68 to .92, meeting the accepted standard of at least .65 (Bonett & Wright, 2015).

Data Collection

Data were collected from a sample group at shopping and community malls in Bangkok, including Central Plaza Ladprao, Fashion Island Ram Inthra, The 9 Rama Square, Samyan Mitrtown, Terminal 21, Mega Bangna, Central Plaza Pinklao, The Mall Bangkae, The Circle Ratchapruk, and Siam Square One, during a period of 3 months from November 2022 to January 2023.

Data Analysis

The researchers analyzed the general data of the sample using frequencies, percentages, and means, and conducted confirmatory factor analysis to examine the underlying factors of job-hopping among employees in Bangkok. The weight of each parameter was calculated using a Maximum Likelihood Estimation. The researchers interpreted the mean values by dividing them into levels using the interval method (Lionello et al., 2021). They established criteria for interpreting job-hopping motive levels into five categories as follows: Mean values between 4.21 and 5.00 indicated the Highest Level; those between 3.41 and 4.20 indicated a High Level; values between 2.61 and 3.40 indicated a Moderate Level; values between 1.81 and 2.60 indicated a Low Level; and mean values between 1.00 and 1.80 indicated the Lowest Level.

The researchers assessed the model fit by applying the Chi-square test ($\chi2$-test), where statistical significance was set at the .05 level, and the ratio of $\chi2/df$ was expected to be between one and five. Additionally, the researchers considered the Comparative Fit Index (CFI) with a value greater than .95, the Tucker-Lewis Fit Index (TLI) with a value greater than .95, the Root Mean Square Error of Approximation (RMSEA) with a value less than .05, and the Standardized Root Mean Square Residual (SRMR) with a value less than .05 to assess the model fit (Hu & Bentler, 1999; Kline, 2005; Dumronpanich, 2020).

Results

The scores for the means, standard deviations, skewness, and kurtosis of job-hopping items are shown in Table 1. It can be seen that the highest job-hopping motive items were finding work that aligned with lifestyle, finding new work with better benefits, feeling uninterested in the current job which caused the need to change, finding a job that was suitable for oneself, discomfort from the supervisor leading to job changes, and finding the most satisfying job. As for the other five motive items, they were also high.

Table 1 *Mean, Standard Deviation, Skewness, and Kurtosis of Items*

Items	Mean	*SD*	Skewness	*SE*	Kurtosis	*SE*	Interpretation
Job is uninteresting, which causes the need to changes (jh1)	4.39	0.820	-1.25	.11	1.02	.21	Highest Level
Discomfort from the supervisor led to job changes (jh2)	4.27	0.818	-0.96	.11	0.50	.21	Highest Level
Feeling bored with doing the same work repeatedly led to changes (jh3)	4.03	0.907	-0.80	.11	0.37	.21	High Level
Dissatisfaction with the current work environment led to changes (jh4)	3.94	0.995	-0.62	.11	-0.38	.21	High Level
Willingness to change jobs in order to find the most satisfying job (jh5)	4.21	0.857	-1.14	.11	1.42	.21	Highest Level
Changing jobs to increase opportunities for higher positions (jh6)	3.95	0.949	-0.60	.11	-0.32	.21	High Level
Changing jobs to find a job that is suitable for oneself (jh7)	4.28	0.819	-1.05	.11	0.82	.21	Highest Level
Changing jobs to find work that aligns with lifestyle (jh8)	4.55	0.716	-1.77	.11	1.76	.21	Highest Level
Changing jobs to find new work with better benefits (jh9)	4.53	0.764	-1.66	.11	2.10	.21	Highest Level
Changing jobs with consideration for convenient commuting and lodging (jh10)	4.20	0.760	-0.82	.11	0.82	.21	High Level
Changing jobs due to being tired of being an employee and starting own business (jh11)	3.39	1.448	-0.27	.11	-1.38	.21	High Level

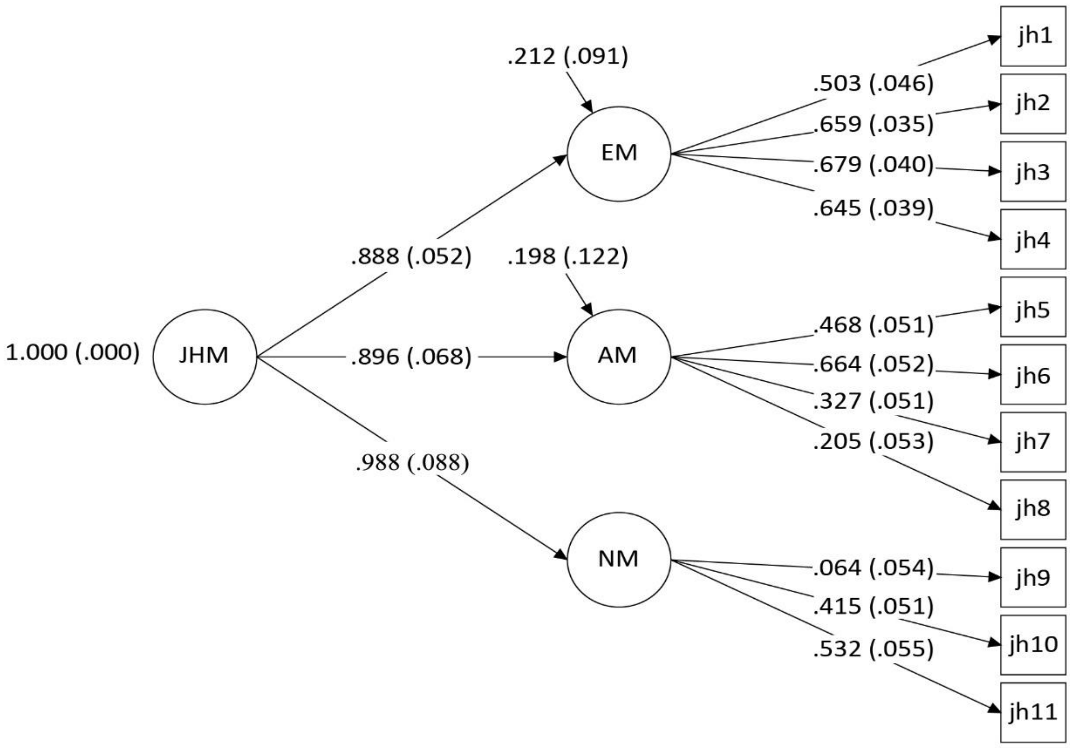
Findings dealing with the second-order confirmatory factor analysis of job-hopping among employees in Bangkok are displayed in Table 2 and Figure 1.

The results of the second-order confirmatory factor analysis on the job-hopping motives (JHM) among employees in Bangkok revealed that the model was consistent with the empirical data based on the goodness-of-fit indices, which included $\chi 2$ = 49.369, *df* = 24, *p* = .0017, RMSEA = .045, CFI = .979, TLI = .951, and SRMR = .031. It is worth noting that only the $\chi 2$ value did not meet the criterion. However, considering that the ratio of $\chi 2/df$ was expected to be between one and five, the model adhered to the criterion. Therefore, it can be concluded that the model was consistent with the empirical data.

Table 2 *Second Order Confirmatory Factor Analysis of Job-Hopping Among Employees In Bangkok*

Second Order	β	*SE*	*Z*	*p*	R^2	t Order	β	*SE*	*Z*	*p*	R^2
Escape Motive	0.89	0.052	17.23	.000	.788	jh1	0.50	.046	10.93	.000	.253
(EM)						jh2	0.66	.035	18.82	.000	.434
						jh3	0.68	.040	17.19	.000	.461
						jh4	0.65	.039	16.41	.000	.416
Advancement	0.90	0.068	13.21	.000	.802	jh5	0.47	.051	9.10	.000	.219
Motive (AM)						jh6	0.66	.052	12.82	.000	.441
						jh7	0.33	.051	6.46	.000	.107
						jh8	0.21	.053	3.85	.000	.042
New Motive	0.99	0.088	11.18	.000	.976	jh9	0.06	.054	1.17	.241	.004
						jh10	0.41	.051	8.17	.000	.172
						jh11	0.53	.055	9.70	.000	.283

Figure 1 *Second Order Confirmatory Factor Analysis of Job-Hopping Among Employees In Bangkok*



The details of the factor loading (β) and the *R*-Square (R^2) revealed that the job-hopping motives factor loading values ranged from .888 to .988, ordered from the highest to the lowest weight as follows: new motives (NM), advancement motives (AM), and escape motives (EM), with the level of reliability (R^2) decreasing in ascending order.

For the first-order factor analysis, it can be seen that the job-hopping escape motives had factor loadings between .503 and .679, listed in descending order of importance as follows: Feeling bored with doing the same work repeatedly leading to changes (jh3), discomfort from the supervisor leading to job changes (jh2), dissatisfaction with the current work environment leading to changes (jh4), and a job that is uninteresting, which causes the need to change (jh1). As for the advancement motives, the factor loadings had values between .205 and .664, listed in descending order of importance as follows: Changing jobs to increase opportunities for higher positions (jh6), willingness to change jobs to find the most satisfying job (jh5), changing jobs to find a job that is suitable for oneself (jh7), and changing jobs to find work that aligns with lifestyle (jh8).

In terms of new motives, it was found that the factor loadings ranged from .064 to .532, listed in descending order of importance as follows: Changing jobs due to being tired of being an employee and starting one's own business (jh11), changing jobs with consideration for convenient commuting and lodging (jh10), and changing jobs to find new work with better benefits (jh9). It is noteworthy that the jh9 factor did not show a significant correlation with job-hopping, indicating that the benefit package was not the reason for frequent job changes among millennial employees in Bangkok.

Discussion

The research findings indicated that escape motives and advancement motives were important components of job-hopping. This study confirmed the job-hopping motives scale (Lake et al., 2018). However, new motivations were discovered which included consideration of employees for convenient commuting and lodging, as well as some millennials who were tired of being employees and wished to start their own businesses. Confirmatory second-order factor analysis was utilized in this research; the data obtained confirmed the additional components of job-hopping motives identified in previous research.

In regards to the issues of commuting or distance between the place of residence and the workplace, it can be explained that employees consider the expenses incurred from commuting as well as the time spent. Longer commute times can be a major source of stress and frustration for employees, leading to job-hopping. Employers can take steps to address the issue of job-hopping caused by accommodation and commute distances. This can include offering flexible work arrangements, such as remote work or flexible hours, which can reduce the need for employees to commute long distances (Aziz-Ur-Rehman & Siddiqui, 2019). Moreover, employers can also consider offering incentives, such as transportation subsidies or reimbursement for relocation costs, to encourage employees to live closer to their workplaces (Schmidt & Duenas, 2002).

Job-hopping can also be driven by the desire for greater creativity and innovation. Millennials may feel that working for a company stifles their creativity, and that they can only fully express themselves through their own ventures (Frian & Mulyani, 2018). By job-hopping, they can seek out opportunities that allow them to work in more creative and innovative environments, or with companies that share their values and interests. However, it is worth noting that job-hopping can also have negative consequences. Frequent job changes can lead to a lack of stability and continuity in an individual's career path, which may be detrimental to their long-term career prospects (Tetteh et al., 2021).

Conclusions and Implications

Job-hopping motives consist of three factors: namely the escape motive, advancement motive, and an additional category of motives. The escape motive is influenced by aspects of the job, supervisor, and work environment, while the advancement motive is driven by a desire for job satisfaction, opportunities for career growth, and work that aligns with the lifestyle. As for the new motives category, the research suggested that millennial employees may leave their current jobs for various reasons, such as considering commuting and housing convenience, feeling burnt out, and having an interest in starting their own businesses. The findings from this study could be useful for organizations in developing human resource strategies to retain millennial employees.

There are several implications for human resource management or practices. First, organizations need to be aware of the different job-hopping motives that influence millennial employees' decisions to leave their current jobs. By understanding these motives, organizations can develop more effective human resource strategies to retain millennial employees. For example, they may need to provide a work environment that fosters job satisfaction, offers opportunities for career growth, and aligns with millennial lifestyles. Additionally, organizations may need to consider offering commuting and housing benefits as well as entrepreneurial opportunities to retain millennial employees. Overall, the findings from this study highlight the importance of creating a work environment that meets the needs and desires of millennial employees in order to increase retention rates.

For future research, it is necessary to build upon the insights gained into the complex factors that drive employee job-hopping. To understand how to reduce employee job-hopping, it is important to examine the effectiveness of certain practices, such as remote work or flexible hours, which can alleviate the need for employees to travel long distances. For example, what types of flexible work arrangements are most effective in reducing job-hopping? Do certain industries or job types benefit more from remote work or flexible hours? How do flexible work arrangements impact employee satisfaction and productivity?

Additionally, future studies should explore the long-term impact of job-hopping on career progression, including how it affects an individual's potential for leadership roles and earning a higher salary. Moreover, research efforts could be used to explore whether job-hopping has different effects on career advancement depending on the industry or job type.

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The Bible and Health: The Miracle of Healing[1]

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Abstract

The Bible is considered a divinely inspired book by Christians and provides moral and living guidelines encompassing all aspects of life, including physical, mental, spiritual, and social health. Theologically, the Bible is the basis of all Christian beliefs, including the concept of origins, the problem of pain, and the restorative plan of God for humanity. In terms of restorative theology, some Christian denominations adopt health-related principles from the Bible as part of their beliefs in God's plan for human well-being. In this paper, the intersection of health-related biblical principles and modern health science is examined, focusing on comparing diet practices in the Bible with recommendations made by modern nutritional scientists. Comparative literature analysis was used to take biblical principles and contrast them with literature produced by nutritional and medical scientists, along with the experiences of practitioners. The findings indicated that biblical practices, such as quarantine instructions to limit disease spread and recommendations to eat plant-based foods, are readily accepted and endorsed by public health authorities. The study provides evidence that health-related biblical principles remain impactful in the modern field of medicine.

Keywords: *Bible, wholistic health, restoration, plant-based food*

Introduction

Many Bible believers have noted that this book contains instructions on how to avoid sickness through nutrition and lifestyle practice (Gen. 1:29). The Bible records the essential foods for humans and animals (Gen. 1:20-30), and the Old Testament has the same content as the Torah of Judaism. The Bible contains principles for preventive health care (Lev. 11–15), together with nutritional recommendations and different guidelines to prevent illness. These principles can be applied effectively in the modern era, as they are supported by respected scholars and practiced in modern medicine. Furthermore, the guidelines render those who implement them more healthy. The Bible is not a textbook about health or nutrition. Yet in Scripture, God provides fundamental principles to guide our personal choices in ways that promote health and prevent disease (Winnail, 2009).

The purpose of this study was to review biblical principles of nutrition and preventive medicine that are applicable in modern times, and have been accepted by nutritionists and the medical community from the biblical archives. In ancient times, a group of people put these principles into practice, and others continue to do so today. These recommended practices are reflected in modern, scientifically-based nutritional education.

Biblical Health Principles

The Bible is the Book that records Christian teachings and practices. It is divided into two parts—the Old Testament, which has the same content as the Torah of the Jewish religion, and the New Testament, which is a record of the life and the practices of Jesus and His apostles.

The Christian tradition shares some elements of belief with Judaism. The latter tradition believes that the world was created by God, and that He left instructions for the human race that have been preserved in written form by inspired writers. The Christian tradition emphasizes the unity of mind, soul, and body, which is clearly taught in their scriptures, so it is not surprising that a connection has been found between diet and health in all domains, namely the physical, emotional, social, and

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spiritual (Shipton, 2009). Christians believe that, “All Scripture [the Bible] is given by inspiration of God, and is profitable for doctrine, for reproof, for correction, for instruction in righteousness, that the man of God may be complete, thoroughly equipped for every good work” (2 Tim. 3:16, NKJV). This verse affirms that its words are from God for the benefit of all believers. When believed and acted upon, these teachings bring desirable results that make recipients ready to be vessels that bring salvation to others. Thus, the Biblecontains teachings and advice related to human life and health. Many Christians believe that God is preparing them to assist Him in changing the course of human history, eliminating the plague of disease, and promoting a way of life that leads to physical, mental, and spiritual health.

When God created Adam, he was perfect in every way like Jesus, who was perfect in “wisdom and stature, and in favor with God and men” (Luke 2:52, NKJV). Jesus was physically, mentally, spiritually, and socially complete. Development in these four areas is a goal that Satan is determined to from being achieved. We are living on a battlefield between good and evil, between God and Satan, and Satan is attempting to destroy humans at all times. In these four spheres, the physical is man’s weakest point, and the domain in which Satan defeated the world's first woman. He convinces the mind by using the physical drives to distract individuals. Thus, our spiritual defenses must be taken seriously; let us not forget that the physical side is fragile, and that Satan can easily destroy it.

Satan defeated Adam and Eve because of their desire to eat (Gen. 3); Esau lost his birthright because of eating desires (Gen. 25:29–34). The Israelites perished because of their eating and drinking behavior (Ex. 16); Satan first tempted Jesus after a 40-day fast (Matt. 4:3-4). There are many other instances where Satan used eating and drinking to tempt humans, and they can rarely overcome except for Jesus alone. Satan effectively uses food to destroy the lives of human beings around the world. When people become sick, they will turn their attention away from God. Christians–and particularly God’s workers, preachers, and pastors–who become sick will not be able to perform their duties fully. The Bible, therefore, requires Christians to show the fruits of the Holy Spirit, especially the aspect involving "self-control" (Gal. 5:22–23) to overcome the appetite, and to always recognize that the body is the temple of God. Therefore, the body should be kept clean and we should not destroy this temple. The apostle Paul warned, “Present your bodies a living sacrifice, holy, acceptable to God, which is your reasonable service” (Rom. 12:1, KJV). Caring for the body is worshiping God; that's why Satan is trying to destroy the body.

Biblical Health Recommendations

In the Old Testament, the prophet Jeremiah asked the people of Israel, “Is there no balm in Gilead? Is there no physician there? Why then is no recovery for the health of the daughter of my people?” (Jer. 8:22, NKJV). The behavior of the Israelites in Jeremiah's day was a hindrance to their spiritual and physical health.

In the New Testament, the apostle Paul encouraged Christians of his generation to change their lifestyles. “Your restoration is what we pray for. ... Aim for restoration" (2 Cor. 13:9, 11, ESV). The aim is for all to enjoy spiritual progress. To be made complete (restoration) in the sense of what Paul means is to have a perfect life close to that of Adam. Before going astray, Adam had a perfect life in every way in terms of health. God has given special dietary intructions to us, “See, I have given every herb *that* yields seed which is on the face of all the earth, and every tree whose fruit yields seed; to you, it shall be for food” (Gen. 1:29, NKJV). If followed, these directions will impact the health in a healing manner. As a saying goes, “There are many foods in the world to choose from, but fruits and vegetables are two foods that cannot be ignored.” Humans may seek wholistic health through the things God has made available in the physical, mental, spiritual, and social areas. These natural remedies can greatly assist in health care if the following advice is embraced: “Pure air, sunlight, abstemiousness [self-control], rest, exercise, proper diet, the use of water, trust in divine [God's] power—these are the true remedies” for protection against disease and for healing (White, 2004, p. 290). These biblical guidelines provided by the Creator of life are excellent principles to follow.

Humans can choose from a variety of foods that are good for their bodies. However, nutritional scientists have shown that certain foods, such as fruits and vegetables, are essential and their consumption should not be reduced. Although humans have not always followed natural food principles and adapted to some foods, such as consuming meat, plant-based foods promote health and are still the most suitable for maintaining healthy bodies. For example, the Eskimos in Alaska, who mainly consume fish, have chronic health problems because of their minimal intake of fruits and vegetables (Pamplona-Roger, 2008).

Human health is highly dependent on lifestyle. Many people think that health problems are caused by genetics, which determine their quality of life and longevity. However, leading a healthy life comes from two main factors: (a) what we put in our bodies, and (b) how we treat our bodies (Gunnars, 2018). All in all, being healthy depends primarily on the “lifestyle” adopted (Tantrarungroj, 2013).

Although we cannot change our genetics, we can change our lifestyle. Lifestyle choices can prevent or delay the early development of diseases to which we may be predisposed. Dr. Neil Nedley aptly quoted Dr. Lamon Murdoch of Loma Linda University School of Medicine when he said: “Genetics loads the gun, but lifestyle pulls the trigger” (Nedley, 1998).

The Bible and Disease Prevention

We have heard the advertisement that says “Half vegetables and half other things" by the Thai Health Foundation (Thai Health Official, 2019), which campaigns for people to eat more vegetables and fruits due to the incidence of chronic non-communicable diseases (NCDs). These diseases are creating public health problems; cancer is a disease that kills nearly 60,000 Thai people a year, accounting for 88.34% of deaths (Strategy and Planning Division, 2021). The main reason that NCDs develop is because of unhealthy lifestyles. If Thai people planned their daily diets to balance essential nutrients, they would combine equal amounts of the vegetables with other dietary components. Doing this would reduce the risk of cancer. The incidence of four prominent diseases (cardiovascular, cancer, diabetes, obesity) that threaten the lives of people in today's society would also be reduced.

Non-communicable diseases in modern times such as cancer, high blood pressure, coronary artery disease, heart disease, and diabetes are not caused by pathogens. They are the result of unbalanced lifestyles, behaviors, unhealthy diets, lack of exercise, stress, and exposure to toxins present in food and in the environment; these factors cause NCDs. In 2014, an estimated total of 14.9 million years of life and 2.4 trillion Baht in productivity was lost by as a result of unhealthy lifestyles (Thai Health, 2014).

When the COVID-19 outbreak occurred, people 60 years old and over and those with congenital diseases were especially at high risk. The above information shows that because of unhealthy dietary habits, humans have become separated from God’s dietary plan of natural foods (Gen. 1:29). In the Bible, God instructed the Israelites not to consume animal fat and blood (Lev. 7:3). People in Thailand have received medical advice for many years to avoid hypertension and heart disease by consuming more natural foods, mainly vegetables and fruit, and participate in regular exercise (Ministry of Public Health, n.d.). Winnail (2020), a health educator, indicated that when humans ignore Bible health principles, this leads to sickness. God knows every molecule in our bodies. David said “I am fearfully and wonderfully made … my frame is not hidden from You …. Your eyes saw my substance, being yet unformed” (Ps. 139:14–16, NKJV).

No doctor knows how to heal every part of the human body, which is a miracle beyond all human comprehension. God knows each organ we possess, so He gave us rules and recommendations in the Bible that would preserve their function. Everyone can implement those guidelines; believing and following these rules prevents sickness. This is a preventive method that God has bestowed upon mankind to prevent the development of health problems.

Dan Buettner worked to identify hot spots of longevity around the world. With the help of the National Geographic Society, Buettner set out to locate places that not only had high concentrations of individuals over 100 years old, but also clusters of people who had grown old without health problems like heart disease, obesity, cancer, or diabetes (National Geographic, 2017). One out of five groups that he found was the Seventh-day Adventist community in Loma Linda, California—which has the most centenarians and the highest middle-aged life expectancy in the US. Residents live purposeful lives in walkable settings that keep people naturally active and socially connected, and they eat a diet that largely consists of whole food plant-based recipes (Buettner, 2005a, pp. 117–161; 2022).

Health is central to the Adventist faith, and they have clear guidelines on diet, exercise, and rest. Adventists typically avoid meat (some also avoid dairy products) and follow a "biblical diet," eating the same way as those who lived thousands of years ago. They follow a vegetarian diet consisting of fruits, vegetables, and whole grains. According to the online study journal *Cancer*, the death rate reported for Adventist in the US was 33% lower from any cause, and 30% lower for all cancers combined, than that of the general population. Adventist had 30% lower rates of breast cancer, 16% lower rates of colorectal cancer, 50% lower rates of rectal cancer, and 30% lower rates of lung cancer (Fraser et al., 2019; Kekatos, 2019).

These findings strongly suggest that these health advantages may be available to all who choose similar diets, in addition to other well-known prudent lifestyle choices such as regular physical activity, avoiding smoking, and care with body weight (Staff Report, 2019).

The Adventist plant-based diet among its church members shows the benefits that can accrue to healthy choices. In 2014, during a conference organized by the Pan-American Health Organization, a senior public health official appealed to Adventists to share their expertise regarding a healthy lifestyle with the rest of the world (McChesney, 2014).

The Bible and the Food of Those Who Will Live Eternally

God created Adam to live forever. He prepared food for the first human family as He said, "See, I have given you every herb that yields seed which is on the face of all the earth, and every tree whose fruit yields seed; to you, it shall be for food" (Gen. 1:29, NKJV). The diet of man was vegetables and fruits containing seeds; this is the food of those who will enjoy eternal life. God gave it to humans for food before sin entered the world. Switching to other dietary practices, such as emphasizing delicious taste over nutrition, and consuming meat and animal fats, is a major cause of NCDs.

The saying "You are what you eat; whatever you eat, so will your body be" is true. The Bible also teaches, "Whatever one sows, that will he also reap" (Gal. 6:7, MEV). This principle remind those who believe in the Bible to be aware of their personal lifestyles. Others have added that "Short-lived foods (fresh vegetables, fresh fruits) make people live longer" (SME Thailand Online, 2018). "Instant food and food prepared through the production process makes consumers' lives shorter" (Krittaya, 2019) For these reasons, eight percent out of 71 million people in Thailand have turned to vegan food because of their belief in its natural remedial properties. Hippocrates, the Greek father of medicine, said about 2,500 years ago to "Use food as medicine" (Witkamp & van Norren, 2018).

Thai medical personnel recognize that food from natural vegetables is valuable for growth and for preventing lifestyle diseases as well (ThaiHealth Official, 2017). Returning to the diet given in the Garden of Eden is the best option; God knows that in the future, people will get sick and die because of poor choices in the food that they eat.

In modern times, increasing scientific knowledge has led to research on plant-based foods using analytical chemical methods. This has led to clearer data showing that fruits, grains, legumes, and vegetables have ingredients that have benefits besides their nutritional value and taste. Two constituents have been found to exist in plants that are not found in animals, which are antioxidants (certain vitamins and minerals) and phytochemicals (Pamplona-Roger, 2008)

Colin Campbell affirmed the benefits of a plant-based diet that offers a comprehensive solution to NCDs.

> Heart disease, diabetes and obesity can all be treated with a healthy diet. Various research shows that different types of cancer, autoimmune disease, bone and kidney health, perception disorder, and Alzheimer's disease have a strong relationship with diet. The most important food that can cure or prevent these diseases is a diet that mainly consists of vegetables. (Campbell, 2016, p. 34)

In Buddhism, detachment from carnal desire includes food and eating habits that do not harm other living creatures. Consuming the right diet will not only help to prevent disease, but also contributes to building a healthy body, and enables one to feel good, both physically and mental (Klajon, 2017).

Reinforcing the Biblical Recommendations

According to the testimony of Professor Dr. George Malkmus, his mother experienced a painful death from cancer. So he decided that if he ever developed cancer, he would not allow himself to be treated with radiation and chemotherapy (Malkmus & Dye, 1995). At the age of 42, the professor became sick with colon cancer. He sought healing from God through consulting the Bible and discovered the advice given in Genesis 1:29. As a result, Dr. Malkmus changed his usual diet to one that was plant-based; he also drank vegetable and fruit juices. Within a year, he was miraculously cured of cancer. So he wrote the book *God's Way to Ultimate Health*, which is based on his real-life experiences. In one place, he wrote:

> The conclusion after my research and experience over the years is that we don't need to get sick. Diseases and illnesses are the results of self-harm. Almost all health problems except accidents are caused by unhealthy eating habits and lifestyles. All we have to do is to eat and live according to the will of God. (p. 26)

Dr. Malkmus believed that the only food that could regenerate cells was living food, especially fresh vegetables and fresh fruits (Malkmus & Dye, 1995). This suggestion is in accordance with the American Heart Association's recommendation to acquire protein from plants. A variety of plant foods also come with high levels of fiber, vitamins, minerals, and other important nutrients (American Heart Association, 2023). Through faith and the experience of following God's instructions, Dr. Malkmus built a health care center called "Hallelujah Acres" that produces natural food for medicinal purposes, known as the Hallelujah Diet. Many people have recovered from disease by using these natural remedies. The interesting thing about the Hallelujah diet is that great emphasis is placed on the products produced from vegetables. "It has been almost twenty years since I recovered from colon cancer. What is considered the most basic and important thing that I have learned is that there is a vast difference between God's ways and man's way" (Malkmus & Dye, 1995, p. 24).

Health awareness among people in Thailand is increasing. Several studies have been conducted by university students on the benefits of plant-based food in promoting good health. The food industry is becoming aware of this shifting awareness, and there is a growing consumer preference for this kind of food.

A study was conducted by Nakaniti on knowledge of and attitudes towards plant-based foods and the meat consumption behavior of a group of Bangkok residents. The data showed a growing heath consciousness among Thais who are turning to plant-based products, particularly those with similar physical properties as meat, because of their health benefits. The majority of Thai people are Buddhists who uphold the Buddha's ethical teachings and animal welfare guidelines (Nakaniti, 2020). Similarly, a study by Nurat (2022) indicated substantial levels of interest among respondents in turning to plant-based products for health reasons. The Thai government is encouraging small and medium enterprises to seize the opportunity to invest in the plant-based food industry, referring to this as the world's future food (Maisuwan, 2021). Research by Jitbovorn on why consumers decide to switch to plant-based meat-like products in Bangkok showed it was because of concerns about their health (Jitborvorn, n.d.).

"God's Way and the Way of Man Are Completely Different"

Dr. Tom Wu, a specialist in nutrition and natural therapies in the US, was ill with terminal lung cancer. The medical doctors said that he had only a few months left to live. When the prescribed medical treatments could not cure his disease, he turned to natural cures. In his book "Nature Saves," Dr. Wu (2010, p. 2) recalled that experience as follows:

> In that state of despair and helplessness, I happened to think of a believing God, hoping for spiritual peace. So I hurriedly picked up the Bible, knelt and prayed to God. Strangely enough, the Bible in my hand suddenly fell to the ground and opened to chapter one of Genesis (Gen. 1:29), which is the chapter on the creation of the world. Finally, I decided to eat according to the guidelines of God.

Nine months later, the test results showed that his body was healed with no cancer cells left, so Dr. Wu was eager to testify and become a speaker who educated people around the world. His witness shows that God has used health as a means to bring many people to believe in the Bible.

An important reason why plant-based diets are beneficial to the body is the fiber that they contain, which represents the parts of plants that the human body cannot digest and absorb. Foods high in fiber take longer to chew. When food is chewed in the mouth for a long time, the taste of food becomes sweeter. The fiber absorbs saliva and gastric juices, causing the food to increase in volume, making you feel full, making you eat less, slowing down digestion, and keeping food in your stomach longer, which makes you feel full longer. In addition, fiber help food move more quickly from the small intestine to the large intestine; thus, the time available for the absorption of substances that may be harmful to the body, such as fat and toxins, is reduced. Dietary fiber is only found in plant-based foods (Nelson & Tantrarungroj, 2002, pp. 49–51).

In Dr. Douglas Winnel's (2001) article "Biblical Principles of Health," he said:

> The Bible is not a textbook about health or nutrition. Yet, in the Scriptures, God provides fundamental principles to guide our personal choices in ways that promote health and prevent disease. In ancient Israel it was the job of the priests and Levites"not physicians, health gurus or legislators"to provide basic health instruction and to set the direction for national health policy. As we examine a number of biblical health principles, we will discover how simple, yet up-to-date, this information is"even though it was recorded thousands of years ago! God revealed fundamental truths in the Bible that medical science has taken thousands of years to confirm. Regrettably, many theologians do not understand the value of the health principles recorded in the Scriptures"and as a result they have failed to perform an important God-given function!

Seventh-day Adventists believe in biblical health principles, and apply these principles as a guide for living healthy lives. This is an effective way of living in a society that is linked to nature, and uses what is in nature to enhance life. The principles consists of steps enabling individuals to practice a balanced life involving body, mind, and spirit. The acronym CELEBRATIONS (or "Celebrating Victory for Life") can be expanded to explain the principles involved:

1. C – Choice: Make smart lifestyle choices, choose what's good for your body, and let go of what's detrimental to your health.
2. E – Exercise: In order to have complete physical health, exercise regularly to reduce health problems.
3. L – Liquid: Drink enough water daily.
4. E – Environment: Preserve the environment to suit the lives of oneself and others.
5. B – Belief: Having faith in religion affects spiritual strength as the foundation of life.
6. R – Rest: Have enough sleep and family recreation to strengthen the body.
7. A – Air: Fresh air is an essential element of life in nature.
8. T – Temperance: Force yourself to give up everything that is unhealthy, such as smoking, alcohol, drugs, and maintain a healthy body weight.
9. I – Integrity: Conduct oneself in a morally acceptable way, being honest with oneself, to duty, and to society
10. O – Optimism: Optimism leads to happiness, hope, and joy.
11. N – Nutrition: Mainly eat plant-based natural foods, which the body needs.
12. S – Social Support: Help others with love and compassion. (Handysides et al., 2012, pp. 13–14)

God knows very well that humans will be destroyed by the diets that they eat. After the global flood when He allowed them to eat meat, He commanded, "Every moving thing that lives shall be food for you. I have given you all things, even as the green herbs. But you shall not eat flesh with its life, *that is,* its blood." (Gen. 9:3–4, NKJV). Meat was forbidden by the Lord because blood in dead animals contains waste products that are harmful to the body, and contain nutrients that promote the growth of germs. For epidemic prevention, God also warned that "You shall not eat any fat, of ox or sheep or goat … and the fat of an animal that dies naturally … you shall by no means eat it" (Lev. 7:23–24, NKJV). These days, medical researchers have shown that animal fats are a common cause of cerebrovascular disease, heart diseases, and paralysis. Dr. Winnel said that God had a reason for not allowing the Israelites to eat unclean meat (Lev. 11). The unclean animals are thoseanimals that clean up the environment, such as snails, crabs, and shrimp, and their meat may contain heavy metal toxins, dangerous pollutants, germs, bacteria, and viruses that are dangerous to consume. When we eat these animals, it is the same as eating the creatures that God created to be the "cleaners' from nature. Even though they are flavored to meet the taste, the consumer is still at risk of poisoning the body" (Winnail, 2001).

Scans of ancient Egyptian mummies done by Dr. Randell Thomas, a cardiologist from the Mid-America Heart Institute, which came from the same era that the Israelites and Moses were in the country, showed that the mummies had chronic diseases, such as heart disease, before they died (Advisory Board, 2017). To prevent His people from suffering the same diseases as the Egyptians, God thus gave the Israelites health guidelines (Lev. 11; Deut. 14:3–21). Today, ancient Egyptian diseases still exist in the world. This shows that the principles which God gave to the Israelites are undoubtedly still applicable today. God said (Exodus 15:26, NKJV):

> If you diligently heed the voice of the Lord your God and do what is right in His sight, give ear to His commandments and keep all His statutes, I will put none of the diseases on you which I have brought on the Egyptians. For I *am* the Lord who heals you.

While the Egyptians were sick and dying of the dangerous diseases caused by unhealthy lifestyles, God's people were safe from those diseases.

Taking into account the crowds of millions of Israelite slaves escaping from Egypt (Gen. 12:37), as they kept moving there must be a good waste disposal system for feces to prevent epidemics. God provided a way for disposal of this waste by saying, "When you sit down outside, you shall dig with it and turn and cover your refuse" (Deut. 23:13, NKJV), which is very good advice against pestilence. The Bible is therefore the first Book to introduce the system of health that has been applied all along.

The Bible and the Special Nation

God intended His people to be a clean, holy, and healthy nation. So He gave them manna, a heavenly food, to replace the unhealthy Egyptian diet. He commanded that they worship the only true God instead of the Egyptian gods and idols. The Lord gave guidelines on public health that they might be a clean and perfect people, so enabling the priesthood to prepare the world for the coming of the Messiah. Nowadays, God's chosen people are represented by spiritual Israelite Christians who leave Egypt (the ways of the world). The Lord intends for His church to be perfect in every area, being clean, holy, and healthy to prepare the world for the second coming of Jesus.

The Bible and the Everlasting Covenant

The Jews who have followed strict health rules according to the teachings of the Bible have proven to the world that they are healthy, of excellent intelligence, and marvelously more talented than other nations. In his article "Muslims Looking at Muslims," Dr. Faruk Saleem, a former government adviser of Pakistan, commented that "in the last 105 years, out of 14 million Jews, 180 of them have been awarded the Nobel Prize" (Saleem, 2010). He wondered what has made the Jews so intelligent. For those who understand the Bible, this is no surprise because many Jews have obeyed God's teachings, especially that related to nutrition and biblical formal education.

Seventh-day Adventists are a group of Christians who adhere to Biblical health principles and are known to live longer and healthier lives. This was affirmed in a National Geographic magazine study conducted by Dan Buettner (2005b). The US News & World Report news magazine recommended that for Americans to stay healthy, they should follow 10 habits. One of these was that in order to be healthy and live longer, readers should "Live like a Seventh-day Adventist" (Sabbath Blog, 2019).

In addition, two health books that are widely recognized around the world ("The Health Revolution on Your Plate" based on *The China Study,* and "How Not to Die") promote plant-based dietary principles, and refer to the Seventh-day Adventist lifestyle (Campbell, 2016, p. 187).

The Bible clearly states that humans were created to live on the seeds and fruit of fields and trees. Genesis 1:29 states that humans were made to eat grains and fruits, while animals were to eat "green vegetation" for their diet, including vegetables and grasses. God intended for humans to live on a plant-based diet, not meat. When sin entered the world, a number of problems arose; the slaughter of animals for food occurred after the Flood. God allowed humans to kill animals for food after that destructive event because of the resulting food shortages (Gen. 9:3–4).

In the kingdom of heaven that God is preparing for those who love His ways and instruction, and into which the righteous will enter and gain eternal life "There will be no more death" (Rev. 21:4, NIV). Neither will there be any more slaughter of animals for food; the world will return to its former state as in the Garden of Eden. Humans will return to the same plant-based diet with which they were blessed immediately after the creation of the world.

The Seventh-day Adventists are a group of Christians who adhere to Bible principles of health and present these principles to people around the world. The Pan-American Health Organization, an organization affiliated with the World Health Organization, has asked the leaders of the Seventh-day Adventist Church to spread the principles of health according to the teachings of the Bible. Evidence has shown that when these principles are followed, they can effectively reduce the rate of morbidity from chronic NCDs (Adventist News Network, 2014).

All Christians will reap the rewards of obedience if they know how to apply these practices in their lives, especially in today's polluted society. This is an intellectual challenge to the world and a challenge to the Christian faith in this day and age. Just believe and listen to the teachings of the Bible; good health can belong to everyone.

Devoted Christians who believe and follow the teachings of the Bible may nurture their health by relying on food and natural remedies. This has been proven by scholars and medical science. The overarching purpose of the information given in the Bible is "Beloved, I pray that you may prosper in all things and be in health, just as your soul prospers" (3 John 1:2, NKJV).

Conclusion and Suggestions

Devoted Christians, who believe and follow the teachings of the Bible, benefit healthwise. The benefits are gained mainly from the consumption of plant-based foods and applying natural resources to promote health, which saves expenditures by individuals and nations. Outstanding health scholars and professionals urge the adoption of a reform in eating habits on a worldwide basis.

Good health is promoted by adopting a diet in agreement with biblical principles. Therefore, there should be more studies and research to promote these principles to prevent sickness and foster continuing health.

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The Pandemic Viewed Through the Eyes of Overseas Filipino Workers in the Emirates: A Phenomenological Study

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Abstract

The majority of the global population has been severely impacted by the COVID-19 epidemic, a global health emergency. In particular, migrant workers were discovered to be one of the most vulnerable groups among the general population during lockdowns. Hence, the impact of the pandemic on their lives has been apparent. This study was pursued with the purpose to describe the pandemic experiences of overseas Filipino workers (OFWs) living and working in the United Arab Emirates (UAE). In-depth interviews with seven participants revealed that the pandemic was an avenue for insight construction and reevaluation for them in which their values of faith, gratitude, commitment, and responsibility were accentuated. Moreover, these OFWs considered the pandemic a situation where their emotions and aspirations as migrant workers were tested, which led them to seek means and strategies to keep thriving in the midst of the crisis, facing risks to continue working during the pandemic for the sake of their families who depended on them. This experience thus calls for policy-makers to implement measures in response to migrant workers' needs to ensure their safety, well-being, and livelihoods in foreign lands, especially when a crisis like a pandemic arises.

Keywords: *Overseas Filipino workers, pandemic experiences*, *crises, trauma*

Introduction

The COVID-19 pandemic was a global health crisis that tremendously affected the majority of the population around the world. Since 2020, it spread across countries, threatening their economies, stability, and citizens' welfare and security. In effect, it has emerged as an event of great magnitude that gave birth to unprecedented changes in the lives of people and work environments. As a response to the outbreak of this crisis, governments all over the world imposed limitations on the freedom of travel and access to places of employment. Depending on the pandemic's phase, these restrictions were implemented at various times, although the majority of the world was impacted by the shutdown between March and June 2020 (Anderson et al., 2021). The impact on the lives of migrant workers and laborers has been particularly noticeable (Kumar et al., 2020). Being a marginalized group in society, migrant workers rely on their salaries to make a living, and so when they are in a difficult situation, they require compassion and understanding of the community (Hargreaves et al., 2019).

During the pandemic, these individuals who migrate from one country to a foreign country to live and work were discovered to be one of the most vulnerable groups among the general population during the lockdowns. This was because the lockdowns completely halted many migrants' ability to make a living (Jesline et al., 2021). Ram (2020) reported that a number of migrant workers became unemployed when the lockdown was implemented. Their whole sustenance vanished, and they could not fend for themselves or their families (Chakma, 2020). It was revealed that these migrant workers were especially exposed to the adverse consequences of the economic crisis (Nanda, 2020). Hence, migrants are more likely to experience social, psychological, and emotional trauma in these kinds of circumstances. This fear stems from their concerns about the welfare and safety of their families back in their home countries, as well as the possibility that the local community would ignore them.

For instance in India, in addition to being cut off from their families as a result of the unexpected lockdown, these migrants were also alienated because of the situation. Many of them had no jobs and

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no money, and faced significant economic setbacks (Anderson et al., 2021; Mishra & Sayeed, 2020). As India's population of 1.3 billion people had little choice but to come to terms with imposed social separation, millions of migrant workers had to confront many difficult challenges (Londhe, 2020). As the lockdown affected the entire community and compelled residents to remain indoors, the migrants had to remain in a foreign nation without support or even access to basic necessities (Kumar et al., 2020). As a result, this group of people had to go through more severe economic, social, and psychological challenges than anyone else (Aragona et al., 2020; Singh, 2020).

In the same vein, the United Arab Emirates (UAE) was one of many countries affected by the COVID-19 pandemic. O'Neill (2021) reported that the unemployment rate in the UAE in 2020 was 2.45% of the total labor force. The unemployment rate represents the proportion of a nation's workforce that is both jobless and actively looking for employment opportunities. In the same report, the unemployment rate in the United Arab Emirates in 2019 was 2.35%, which was lower than the unemployment rate in 2020, which means that the unemployment rate rose from 2019 to 2020, which was the year when the COVID-19 pandemic started (O'Neill, 2021). Moreover, the *Khaleej Times* reported that UAE companies had started cutting their migrant employees' salaries, and were asking them to work from their home countries instead (Abbas, 2021). Such harsh conditions were being enacted in reaction to losses, which affected the labor force in the UAE.

Undoubtedly, the pandemic disturbed the lives of people living and working in the UAE, including overseas Filipino workers (OFWs), or Filipinos who were legally living and working in that country located in the southeastern part of the Arabian Peninsula. In the UAE, which is a federation of six emirates (Abu Dhabi, Dubai, Sharjah, Umm Al-Quwain, Ajman, and Fujairah), data showed that OFWs numbered around 650,000 as of January 2020 (Philippines Department of Foreign Affairs, 2020). In the latest report, Filipinos were the fourth largest expatriate group in the country, next to Indians, Pakistanis, and Bangladeshis (Global Media Insight, 2023). These Filipinos in the UAE were primarily migrant overseas workers employed in the fields of health science, education, architecture, engineering, information technology, marketing, real estate, business, telecommunications, tourism, and domestic service across all emirates. In light of the pandemic, over 50,000 Filipinos from Dubai and the Northern Emirates have left the UAE since June 2020 for various reasons brought about by the situation. Of the total, the Philippine Consulate in Dubai provided free tickets and assistance to more than 3,500 distressed Filipinos (Tesorero, 2021). Moreover for the Filipino community, the annual unemployment rate in 2020 reached a record high of 10.3% compared to 5.1% in 2019. This was equivalent to 4.5 million Filipinos losing their jobs during the pandemic (Varcas, 2021). This intensified the assertion that the pandemic affected millions of families around the world, and tens of thousands of families who had ties to OFWs. These families faced struggles impacting their livelihoods, well-being, and financial stability (Cleofas et al., 2021). In a study by Pogoy and Cutamora (2021), the experiences of Filipino intensive care unit nurses in Dubai were explored. The findings revealed that various challenges tested the will and dedication of these nurses as they practiced their profession in the riskiest of times. However, as they faced homesickness and concern about their health and safety, they also built up resilience by seeing how vital their jobs were during the pandemic.

Various researchers across the world have dealt with how the pandemic affected the lives of various institutions and employees (e.g., Abbas, 2021; Pogoy & Cutamora, 2021; O'Neill, 2023; Varcas, 2021). However, no significant research has been undertaken to delineate the effects of the pandemic as a psycho-social experience for OFWs living and actively working in the UAE. Hundreds of thousands of Filipinos viewed this region as a place to improve their prospects. Using a qualitative method of study, this investigation allowed researchers to examine the job conditions and experiences of Filipino migrant workers during the pandemic. While it is arguably true that many, if not all of us, have succumbed to fear and been afflicted in one way or another, in this paper it is argued that despite their vulnerability, OFWs have remained persistent in various ways due to familial obligations and personal aspirations. Therefore, using a phenomenological design, this study aimed to explore the saga of OFWs in the UAE during the pandemic, which the researchers held was a unique psychological and social experience for migrant workers. Investigation, understanding, and analysis of the difficulties, coping strategies, and insights that migrants held and experienced during the pandemic were essential steps toward appreciating them for their sacrifices to live and work away from their native land. Furthermore, to raise public awareness and offer new measures that can be used to generate better approaches in responding to migrants' needs, it is necessary to record and analyze their experiences. The findings obtained could paint a picture of how the UAE and the Philippine governments could support these people who are making significant contributions to the development of both countries. The findings gathered during this study may suggest more ways to ensure their safety, well-being, and livelihoods in a foreign land, especially when a crisis arises.

Methods

This study employed a descriptive-qualitative design, relying particularly on phenomenology. Through a qualitative research design, researchers can produce narrative or textual descriptions of the phenomena under study (Creswell & Poth, 2016; Johnston & VanderStoep, 2009). Therefore, in order to achieve the purposes outlined for this research, the researchers employed a phenomenological approach. Phenomenology makes it possible to objectively analyze data and information that is naturally subjective (Sousa, 2014).

The study was conducted in various emirates of the United Arab Emirates. The participants were seven overseas Filipino workers gathered through a snowball sampling method (Kirchherr & Charles, 2018). In identifying eligible participants, a set of inclusion criteria was employed. A participant must be an OFW with a valid working visa in the UAE; must have been living with their family (spouse/kids) in the UAE since the pandemic started in March 2020; and must be willing to volunteer for inclusion in the study. Initially, the researchers posted a "call for participants" poster in a Facebook group for UAE OFWs. After a week, three people responded, and after screening and verifying their eligibility, they were identified as participants. Two of these participants recruited two more participants each, which resulted in a total of seven participants for this study.

Permission from the research committee of the Philippine Emirates Private School was secured to commence data-gathering procedures. Then the participants, after having received a comprehensive description of the study, expressed their willingness to join through submitting signed letters of consent. A semi-structured interview guide, validated by five research experts, was utilized during interviews conducted via Microsoft Team. The questions asked were grounded in the OFWs' perceptions of living and working in the UAE while the pandemic was going on, plus their challenges, opportunities, and the coping mechanisms they used. In analyzing the information, this study utilized data analysis methods prescribed by Moustakas (1994). In the coding process, the researchers employed horizontalization (i.e., this involves significant statements, sentences, or quotes that highlight the phenomenon being studied). These features were found in recurring patterns, concepts, and/or ideas in the excerpts. On the side, careful judgment and reflection on the part of the researchers were employed so all coded statements were clustered according to themes. These significant statements and themes were then used to develop the textual and structural descriptions. From the textual and structural descriptions, the researchers then wrote a composite description that presented the essence of the phenomenon (the essential, invariant structure or essence). The main themes of the study were derived from this approach. After analyzing data from the seven participants, the theoretical saturation point was reached, i.e., no further themes or new concepts were discovered after evaluating successive data for a category under investigation. Hence, the recruitment of participants was then halted. In the end, the precision of the data analysis was confirmed by five external research reviewers. In the same way, the researchers maintained an audit trail and kept a reflective record during the entire course of the study, and ensured that this study's findings were based only on the gathered data, and that discussion was based on sound theories and prior research.

Results and Discussion

The participants' profiles are detailed in Table 1. Of the seven participants involved in this study, two were working in the emirate of Dubai, three in Abu Dhabi, and two in Ras Al Khaimah. On average, the participants, who were 46 to 58 years old, had been in the UAE between 20 to 36 years. All of them were married, with kids, and legally working in the country. Most notably, the OFWs had onsite jobs during the pandemic. Hence, despite the health restrictions, they had to come to work physically. To ensure anonymity, each participant was referred to as OFW1, OFW2, and OFW3 to OFW7.

Table 1 *Profile of the Participants*

Pseudonym	Gender	Job Field	UAE Location	Age	Marital Status	Years in UAE
OFW1	Male	Sales	Dubai	48	Married with 3 kids	23
OFW2	Female	Sales	Abu Dhabi	55	Married with 4 kids	35
OFW3	Male	Nursing	Ras Al Khaimah	46	Married with 1 kid	20
OFW4	Male	Engineering	Abu Dhabi	52	Married with 3 kids	30
OFW5	Female	Nursing	Abu Dhabi	49	Married with 2 kids	24
OFW6	Male	Sales	Ras Al Khaimah	55	Married with 3 kids	31
OFW7	Male	Food Industry	Dubai	58	Married with 2 kids	36

Following a thorough and careful examination of the transcripts, essential themes were developed to shed light on the lived experiences of OFWs in the UAE during the peak of the COVID-19 pandemic. These themes illuminated various aspects of the phenomenon as experienced by the participants. The excerpts provide a variety of perspectives and allow the participants to speak for themselves.

The Pandemic: An Insight Constructor

Embracing Realities and Gratitude. The participants expressed that working in a foreign country and being away from their families during the onslaught of the pandemic made them gain total awareness of how difficult and awful the situation was that affected their routines and daily circumstances. Nevertheless, they expressed their gratefulness for the opportunity to keep their jobs. This went with acquiring the insight that they should always treat having the capability to work as a daily blessing. As they acknowledged, their jobs were their main source of income that sustained their daily needs despite the fact that, during the pandemic, many professionals and skilled workers in the UAE lost their jobs after their companies closed. Also, participants realized that changes and difficulties were happening during the pandemic. Some found it difficult and worried that they might lose their jobs, as well as become infected. Hence, they were well aware of the situation that was unfolding around the globe.

These thoughts are reflected in the following quotes: “When it was discovered and many people suffered from this pandemic, all about our life was changed. And imagining the chaos and the suffering of the people, and then our daily routine was changed also” (OFW#1); “It's just yourself that will be your motivation in facing this time of the pandemic, especially at our work right now because we are far away from our family, so we will serve as our own motivation” (OFW#4); and “We know that lots of people lost their jobs, so we need to love our jobs and then save more money, because we don’t know when we will lose our job or we will end the contract” (OFW#5).

The statements brought forward by OFWs suggested that the pandemic has in a way prompted them to form positive perspectives in the face of the many challenges around them. They might have had to put up with a damaging and serious situation because their normal activities and lifestyle had been disrupted by this predicament. In the midst of the COVID-19 pandemic, they knew that the environment around the world was unpredictable and dangerous not just for them, who had to keep working, but also for the members of their families. Nevertheless for these OFWs, the pandemic was not a totally negative experience, as insights formed from their experiences taught them valuable lessons as workers in a foreign land. This finding is supported by insight learning theory, which states that in constructing an insight, the entire situation seems to take on a new form, changing the individual's perception of the situation and giving it a more meaningful and appealing appearance (Ash et al., 2012; Windholz & Lamal, 1985). A sudden flash of insight allows a person to organize and establish relationships between things in new ways, adding an emotional touch. In the case of OFWs, the concept of appreciation took on added significance in making them move forward amid their problematic situations. That is, they were thankful for being able to keep their employment and realized that they should count each day that they were able to work as a gift from God. This suggests that, despite their predicaments, these OFWs had opted to look on the brighter side, counting their blessings that they still had jobs, while more than 200 million jobs worldwide were destroyed (Hassan, 2021). Hence, the participants felt thankful as their relatively mild predicaments seemed to be a light amid the darkness. Having the opportunity to work meant they were still able to provide for their families' needs and continue with their journeys abroad. For them, even in the midst of difficulties, stresses, and overwhelming circumstances, gratitude served as a reminder of how precious life is. As Jans-Beken (2021) puts it, an attitude of mature gratitude was able to aid people in adjusting to the new risks and limitations introduced by the pandemic.

Realizing the Responsibility. The study's participants, OFWs in the UAE, appeared to have fathomed well how preventive and safety measures needed to be followed, and these things had a great impact on their lives. While it was a challenge for them to continue working onsite while strictly adhering to all government rules and regulations in an effort to stop the spread of the disease, they understood that this was the very essence of their socio-civic responsibilities. These sentiments were expressed in a number of statements, some brief and others more extended. OFW#4 made the following statement: "It is our part to help to prevent COVID-19 from spreading . . . . We must help one another, our governments, ourselves most importantly . . . . That's what Filipinos are after all – united." Two more expansive comments gathered were as follows:

> All the precautionary measures that must be adhered to and applied . . . . I must abide strictly, together with my family . . . We are foreigners here who are thankful to this host country for the job opportunities, greener pasture. Obeying the rules is just the least we could do" (OFW#2).

> It's very hard and challenging because we all know that this pandemic or specifically, this viral infection is, very fatal, it's very deadly, so all the precautionary measures must be adhered to at all times . . . we need to take care of ourselves from the virus for our family and for the future" (OFW#6).

The participants realized that when a population as a whole adopts preventative and protective behaviors, it lessens the likelihood of illness being passed from person to person, and so the disease curve will flatten out and everyone will benefit. Here, it is gleaned that an OFW's commitment, motivation, and ability to understand accountability toward others played a major role in impacting the participants' lives as the pandemic went on. They found themselves as their own motivators in following every safety protocol mandated by the government in order to keep everyone safe. They embraced the responsibility that while living in a country that was not theirs, they must be responsible individuals, so that other nationalities may follow. After all, they lived in one community.

Additionally due to the dire times, OFWs gave importance to prioritizing the safety of their families, who were either with them in the UAE or in the Philippines. The participants encouraged their family members to abide by the guidelines and to keep safe, so they were actively in contact with them. Communication was regular, if not constant, among them and their family members. For the participants, working abroad was grounded on the desire to earn on behalf of their families. Hence, they had to protect and guide them at all costs. These feelings and initiatives were evident from a number of statements: "We talk, pray, and keep on educating them on how to prevent the virus or the infections, how to clean their hands, and how to do social distancing" (OFW#2); "I'm advising them to obey or abide by the protocols in the Philippines. Most of the time they're just at home, and just go out when there are things to buy" (OFW#7).

> Most of the time, we would always stay at home and if we are going out, we need to wear face masks…and maintain social distancing. Okay, double masks—always we are wearing double masks nowadays. And all the members of our family are already vaccinated." (OFW#5)

It can be gleaned from the findings that the OFW participants accentuated their socio-civic responsibilities by abiding by the rules and regulations of their host country regarding the pandemic.

They were very much aware that working onsite due to the nature and demands of their jobs was a high risk for them and their families; hence, one thing that they could do was to be totally responsible for their actions. The participants by their actions were able to instill in their family members the necessity of maintaining safety and security throughout the health crisis caused by the pandemic. Through regular communication with their families, they constantly reminded and instructed them to be as cautious and watchful as possible. With these actions, it can be implied that the OFWs' commitment to being responsible members of the community and caring parents of their families resulted in a small contribution to lowering the number of COVID-19 cases for their benefit and that of all those around them. In contrast, in the study of Khatatbeh et al. (2021), Jordanians' commitment to health measures, such as face mask use, hand washing, and physical separation, was not optimal, which may explain the substantial spike in the infectivity rate of the COVID-19 virus across that nation. Hence, it may be suggested that a greater commitment by citizens' to abiding by the health promotion guidelines and even stricter legislation is necessary.

Reflecting on the Situation. For the participants, developing positive, helpful community benefiting attitudes during the pandemic was a progressive phenomenon brought about by learning first-hand the seriousness of the pandemic and the necessity of coping with the situation. They likewise expressed advice for other OFWs in response to their difficult journey during the pandemic. Based on the analysis of their comments, they had a common caring response expressed through their desire to share an understanding of what they had experienced during the pandemic. This allowed participants to learn from their and others' experiences and stand on their own feet, and it assisted them in getting through the pandemic. Several comments reflected these conclusions as follows: "You can share knowledge, experience, and even emotional/financial support" (OFW#3); "To other people, while they are working, they need to start saving money for the future so that when they lose their jobs, they have savings" (OFW#4).

> Whatever happens if that is a pandemic or something like a disaster or a big problem or whatever it is, the most important thing for you to do is to realize the lesson from it and reflect on it. Another thing, the saying "experience is the best teacher" means not only learning from your own experiences, but also from others' situations and experiences. (OFW#5)

During the course of the pandemic, participants were able to appreciate the life lessons gained that they now considered to be fundamental to who they are and what they prioritize in their lives. As they shared about how they could support others, adjust to the situation, advise others about saving strategies, and consider experience as the best teacher, they actually implied that going through the pandemic was not a totally atrocious experience. Rather, it has been an experience for many OFWs that widened their philosophical horizons and personal values. Changes might be inevitable, but the individuals who adapted to and understood the basis for the societal changes occurring and subsequently made personal adjustments ended up bettering themselves as a result of the pandemic. This suggests that understanding the implications arising from a challenging event and making appropriate adjustments helped these OFWs cope with the unfolding situation, and thus enabled them to move forward. As Velazquez (2020) opined, as destructive as it appears, the present health catastrophe has enlightened people on the frailty of humans, the helplessness of humans, the limited effectiveness of technological advancements, the rediscovery of the common good and human unity, and the unavoidable power of death. With such lessons, the world can be more than ready to face any other cataclysm in the future.

Wising up on Finances. The participants talked about some methods that they utilized in order to handle necessary expenditures. The participants also expressed that the pandemic had taught them that they had far more potential for good than they gave themselves credit for, such as they could not afford to go out to restaurants, stores, bars, theatres, concerts, etc. They saw how much money they could save if they refrained from indulging in these activities as often as before the pandemic. They learned from their everyday experiences that they should never assume that their income would continue indefinitely and that they should create a lifestyle budget to prepare for unexpected expenses. These conclusions were based on the following comments: "The pandemic has taught me more about budgeting in a more effective way. Thinking that maybe anytime we need it . . . we [incur] expense, I have to put in mind the needs, not the wants. So, I minimize going shopping" (OFW#1) and "So I calculate my expenses. Then, of course, I limit my budget, for example, this month I'm just going to use 3000 to 4500 dirhams (UAE currency) for the whole family, and that's the budget set; it shouldn't go over that" (OFW#6).

The pandemic has compelled the OFWs to become cautious in handling their expenditures and finances; this includes prioritizing their needs over their wants as individuals and/or as a family, and preparing emergency funds in case of an unexpected situation emerging. Another way that the OFWs handled their finances during the pandemic was by setting a limit on how much they planned to spend in a month, as well as calculating their planned expenditures in such a month. The economic pressures arising on account of the coronavirus outbreak led to OFWs putting off about 43% of major purchases, 31% reduced spending on food, and about 28% used their savings or increased their credit card debt (Karpman et al., 2020). The devastating economic effects of the pandemic have required many people to reevaluate their finances and cut back on expenses. Some found small ways to save, such as canceling unnecessary subscriptions, while others had to make bigger shifts, such as moving in with family members to save money on housing (Schnalzer, 2021).

The Pandemic: A Psychological Battleground

Putting up with Negativities. The COVID-19 pandemic may have long-term implications for OFWs' mental situations. Increased anxiety symptoms and poorer access to care and resources for people with pre-existing mental health conditions resulted from the pandemic, as well as a decline in the accessibility of certain family, social, and mental support services due to the physical/social distancing requirements. The negative attitudes and behaviors that OFWs felt during the pandemic were highlighted in their statements. It is undeniable that these OFWs experienced negativities as a result of this untimely occurrence. This is reflected in the following comments: "When we heard some news that some of our colleagues were positive and they [were] becoming sick, admitted, and isolated . . . when my whole family was sick because of this COVID, I was very depressed . . . I couldn't perform well at work" (OFW#3); "It's really hard since the communication between students is being done through online platforms. And not doing that for so long at some point, there would be the feeling of loneliness . . ." (OFW#6); "Anxiety, stress, scared, and other negative thoughts. Worried that we might get infected every time we go outside for groceries and worried for their family . . ." (OFW#7); and

> There is sadness because I thought what if there was no pandemic? How will the outcome be for my work, what are the possibilities? Who are the people that we can possibly meet? There is sadness in thinking about these "what ifs." (OFW#5)

The OFWs felt negative emotions such as anxiety, worry, and loneliness due to the unsafe and uncertain conditions of the surroundings with respect to the pandemic. On top of those, OFWs felt deep concern for their family and relatives; thus, they felt uneasy and disturbed even during work hours. This uncertainty about what might occur in the coming days truly added to every person's fear in the midst of the pandemic (Jiwani et al., 2021; Park et al., 2021; Karatas & Tagay, 2021). Moreover, during the health crisis caused by the pandemic, the potential and invisible threats may have magnified anxiety-related responses, such as worry. The nature of the threat caused by the pandemic led to uncertainty and a perceived lack of control, as well as increased anxiety (Taha et al., 2014; Sadiković et al., 2020). When the cause or progression of the disease and outcomes were unclear, rumors sprang up and close-minded attitudes tended to eventuate (Ren et al., 2020; Shi, 2020). Likewise, it is notable that multiple stressors–including movement restrictions, separation and/or isolation from family and friends, the uncertainty of the future, fear of being infected, stress from the continuous environmental changes, the constant feeling of weariness and boredom, and financial loss are a few of these factors–may have exacerbated negative psychological impacts and played a role in aggravating poor mental health (Marzo et al., 2021; Serafini et al., 2020). It is undeniable that many facets of people's lives, including their livelihoods, were disrupted as a result of the movement restrictions and quarantine, on top of the potential to set off a wide variety of psychological problems and responses, which could be lasting or–worse yet– permanent (Respati et al., 2021).

Overcoming Emotional Burdens. The participants revealed various ways in which they adapted to cope with changes in their psychological well-being as a result of the COVID-19 pandemic. The participants had various coping mechanisms. Nevertheless, they commonly shared the desire to survive and get through the experience. In the same way, they intended to help themselves fight stress while also increasing their control over their behavior and attitudes. Participants' comments indicated that they were able to cope by accepting and acknowledging the situation with optimism and faith, developing a more hopeful perspective on the world, and establishing deeper connections with their families. These thoughts are evident in the following excerpts: "I had a lot of 'what ifs,' I had a lot of thoughts, I just sort out my thoughts, why I am here, and just keep on having positive thoughts. Be stronger than your emotions" (OFW#5); "I always communicate via Zoom every week with my sister in the Philippines . . . that makes me strong and inspired . . ." (OFW#6); "We spend our time at home watching movies, eating more, playing tennis, and exercising . . ." (OFW#7); and

> I am holding on by accepting the reality, by preparedness and awareness given by the DOH here in Abu Dhabi, and by prayer . . . . I don't overthink about these things anymore, and I put my trust and belief in God, since He is bigger than COVID-19. (OFW#4)

While OFWs described their emotional burdens in the midst of the pandemic, they were–on the other hand–positive in facing the situation by maintaining proper, regular, and quality communication with their loved ones, embodying an optimistic outlook, and having faith in God. They implied that with the conclusion of the pandemic still in question, they could use this time to strengthen their relationships with their families and teach their children valuable lessons. Evidently, with these coping mechanisms, the OFWs were able to establish values of hope, resilience, and connection. Moreover, it was also revealed that family relationships could be fostered by engaging in home sports and healthy lifestyles in the form of exercises. For these OFWs and their families, their new routines were considered a wonderful avenue for opening up to one another and thus seemingly forgetting the pains and travail the world was going through because of the pandemic. Kaur et al. (2020) indicated that mental health problems were reported during the early stages of the pandemic. Many, however, shifted their focus to home activities, which substantially aided in regaining their mental and physical health. Elsewhere, the pandemic also led to increased communication between family members (Cleofas et al., 2021), similar to the case of the OFWs and their families in the UAE or in the Philippines, which then lightened the inconvenience caused by the afflictions encountered. Despite the fear that comes from not knowing how a pandemic will play out, and in the face of fatigue towards policy responses to that uncertainty, optimism helped people to find a way out of the darkness and to deal better with the pandemic's impacts (Eva et al., 2020). Meanwhile, as another way to cope with the COVID-19 epidemic, it is believed that religious activities and belief systems played a vital part in the lives of OFWs. In accordance with previous research, individuals could be observed improving their coping by assigning religious significance to such cataclysmic circumstances (James et al., 2019; Munawar & Tariq, 2018; Zahra et al., 2021).

Conclusions

The findings and discussion of this study have led to unfolding the experiences of OFWs in the UAE amidst the COVID-19 pandemic. From this study, it was concluded that the pandemic impacted different life aspects of the OFWs, who learned different necessary safety and precautionary measures in order to stay safe. Moreover, due to the pandemic, the financial situation of the OFWs was affected. Hence, they resorted to being more cautious and smarter in spending their finances by applying methods, such as budgeting and having emergency savings, in order to better stabilize their financial state. Additionally, the psychological health of the OFWs was affected. They experienced negative emotions such as anxiety, loneliness, and fear, but they still found ways to cope by keeping a positive mental attitude and keeping in touch with family and close friends. In general, the present researchers concluded that the experiences of OFWs in the UAE were not distinct from the rest of the world.

Nevertheless, these OWFs were more isolated, unable to travel home, and thus were more stressed given the accountabilities they had towards their families back in the Philippines. This study then accentuated that the choice to work in another country, like the UAE, required a significant amount of sacrifice and compromise, most especially when there was a crisis. Like many migrant workers in the world, being away from one's family for an extended period of time, especially when there was no clarity about what lay ahead, including the dangers abroad, was excruciating for both the body and the mind. Nevertheless, what is worth emphasizing from the experiences of OFWs was their faith in God and in themselves. Likewise, the values of optimism, family spirit, and persistence to keep going amidst a public health crisis are qualities that must be embodied by anyone who would dares to migrate and work away from their native land. Hence, not only is this research relevant to Filipinos, but the study's findings could also provide a perspective into the working lives of UAE migrants from other nations.

Our findings could benefit the general public as they become more cognizant of the experiences and position of OFWs during the recent health catastrophe. Likewise, as the objective of this study was to understand and give meaning to the experiences of OFWs in the UAE, it could be concluded that the findings of this study could raise awareness of future plights that OFWs might have to endure while being committed and dedicated to their overseas jobs amid a cataclysmic circumstance.

Nonetheless, since the focus of the researchers was on analyzing the lived experiences of selected OFWs in the UAE, the data collected cannot be generalized beyond the specific group studied. A wider demographic, such as other expatriates of diverse nationalities, may yield significant and intriguing findings. Their lived experiences might vary from those of the OFWs. Thus, the researchers recommend future studies to explore this area and to include aspects not included in this study.

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Board Competency for Fiduciary Governance Responsibilities: A Basis for Competency and Fiduciary Enhancement Programs[1]

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Abstract

The challenge of providing good governance is paramount in higher education institutions. Governing boards play a pivotal role in governance as they help to ensure that management achieves the institution's stated goals and objectives. The purpose of this study was to explore the current practices of board competency and the duties of the board of trustees in seven selected institutions in the Southern Asia Pacific region as viewed by appropriate board respondents (*N* =114). Strategic, contextual, analytical, political, educational, and interpersonal competencies, as well as fiduciary governance responsibilities, were reportedly practiced at a high level. Competency and governance responsibilities were closely associated, implying that the higher the competency of a board of trustees, the better was the performance of governance responsibilities. The Mann-Whitney results showed that female respondents practiced a higher level of fiduciary responsibilities than males. Moreover, the regression results identified educational competency as the strongest predictor of the practice of fiduciary governance responsibility. Recommendations and guidelines for educational competency and fiduciary enhancement programs were generated to assist in the development of good practices.

Keywords: *Board competency, fiduciary governance responsibilities, board development*

Introduction

In recent years, numerous challenges have been created by globalization and have shaped the educational landscape of higher education institutions (Rios, 2013). The evident scarcity of financial resources, unstable enrollment, high operational and capital expenditures, evolving cost of technology, and increasing competition between faculty and administrators were some perceived drawbacks of modernization (Afriyie, 2015; Canosa, 2008).

School governance by a board of trustees is a critically important mechanism for guiding the direction of higher educational institutions around the world. It is generally the highest organizational authority within an institution in decision and policy making (Arslan, 2013). Griffin (2011) emphasized that boards of trustees shape the direction of schools, provide for the well-being of all constituencies, and are held responsible for the overall performance of the institutions they govern. They are considered the guardians of the most important trust, values, and integrity of the organization (Barac, 2015). They are the owners in trust of a larger group of stakeholders such as students, parents, communities, and the whole constituency (Arslan, 2013).

The board has fiduciary responsibility, a feature that refers to stewardship of the tangible assets of the institution and the provision of guidance for it to remain faithful to its mission. The fiduciary responsibilities of the board of trustees include appointing and supporting the president. In the appointment of the president, the board of trustees is making a conscious decision to entrust the college or the university to an individual who can change its direction for decades (Collins, 2013). The board should give the president both psychological and substantive support (Chaffee, 2014; Davidson et al., 2014; Hartley, 2014; KASFAA Policy Manual, 2016; Shattock, 2012; Thomas, 2020; Wormell, 2013). Fiduciary responsibilities also involve assessing the president's performance, which should be

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done on a continual basis. Removal of the president would be anticipated when the board's expectations failed to be met (Arslan, 2013; Collins, 2013).

Trustees also authenticate an institution's claim of significance to external communities. They interact and explain its programs to the public, and in return interpret the public's sentiments and feelings to the institution (Chaffee, 2014; Davidson et al., 2014; KASFAA Policy Manual, 2016; Hartley, 2014; Shattock, 2012; Thomas, 2020; Wormell, 2013). A board of trustees that has accepted its roles and responsibilities are willing for its performance to be evaluated.

In terms of fiduciary responsibilities, each trustee is under obligation to protect, acquire and preserve the school plant, facilities, and grounds. They are expected to take all possible measures to promote safe and healthful surroundings for students, provide care for the campus vicinity, approve the design of the buildings and campus facilities, provide adequate space, and ensure the beauty of the buildings and grounds (Arslan, 2013; Collins, 2013; Ingram, 2016).

The scrutiny of board governance has attracted considerable attention in research publications. According to Chappell (2013), some board members do not provide enough oversight to the institution, while others have limited knowledge about their roles and responsibilities. These problems increase the demand for accountability by more knowledgeable board members (Huff et al., 2011). Santiago's (2008) research revealed some issues arising from trustees who had a limited knowledge of their roles and responsibilities or who failed to engage in fundraising initiatives to support the school's operation. Problems also occur when no orientation or professional training is provided for new and old members relative to their major responsibilities.

Since the work of the board of trustees is so important, aspects of the individual trustee's preparation, perceptions, attitudes, and practices should be considered (Jaskyte & Holland, 2015). It was therefore the purpose of this study to determine how the trustees of higher educational institutions perceived their competencies as board members and their practice of fiduciary governance responsibilities.

Specifically, answers to the following research questions were sought:

1. What is the perceived level of board competency in terms of strategic, contextual, analytical, political, educational, and interpersonal skills?
2. What is the perceived level of practice of fiduciary governance responsibility?
3. Is there a significant relationship between board competency factors and the practice of fiduciary governance responsibility?
4. Is there a significant difference in the practice of fiduciary governance responsibility when gender is considered?
5. Do gender and board competency factors predict fiduciary governance responsibility?
6. Based on the findings, what development program can be recommended to enhance board competency and fiduciary governance responsibilities?

Methodology

Research Design

A descriptive-correlational design was used to examine the relationship between board competency and fiduciary governance responsibilities. The results also served as the basis for a proposed development program to enhance board competency and the practice of fiduciary governance duties.

Participants and Sampling

The respondents of the study were board officers, board members, and institutional representatives who were serving on the boards of selected sectarian higher education institutions in the Asia-Pacific Region. Seven Seventh-day Adventist higher education institutions participated in the study. Purposive sampling was used in the study to include members of these boards of trustees and their administrative associates who had knowledge of the affairs of higher education institutions, their policy making bodies, and those who were involved with governance functions.

Instrumentation

The attributes of governance effectiveness were measured utilizing six board competencies for identifying effective trusteeship (Griffin, 2011). The instrument included questions about the demographic profile of respondents. It also contained a Board Competency Questionnaire (30 items) to reflect the respondent's level of practice with six competencies for effective trusteeship namely: Strategic, Contextual, Analytical, Political, Educational, and Interpersonal (Rahimi et al., 2011). A Governance Responsibilities Questionnaire (14 items) was also used to reflect the extent of respondents' fiduciary responsibility.

The data obtained were analyzed using SPSS. The following Cronbach's Alpha reliability figures were obtained: Strategic Competency = .892; Contextual Competency = .883; Analytical Competency = .909; Political Competency = .907; Educational Competency = .875; and Interpersonal Competency = .864. The Cronbach's Alpha reliability results for Governance Responsibilities were as follows: Fiduciary Responsibility = .947; Strategic Responsibility = .960; and Generative Responsibility = .945.

Data Gathering Procedure

The research questionnaire was validated by 10 specialists in the fields of education, business, theology, psychology, human resource development, governance, and research. After the validation process, a revised questionnaire was produced under the guidance of a research adviser. Appropriate permissions were gained, letters of request were sent to the Presidents of the concerned institutions, and visits were made to conduct a pilot study.

Data Analysis

A total of 115 participants completed the questionnaires, but the final population was 114 following the deletion of an outlier based on the recommendation of the university statistician. Means and standard deviations were used to present the respondents' demographic profiles and the level of practices for board competency and governance responsibilities as reflected in research questions 1 and 2. Pearson's correlation coefficient was used to measure significant relationships between variables involved in board competency and fiduciary governance responsibilities as reflected in research question 3. The Mann Whitney *U* test was used to determine significant differences between two demographic variables that were related to the governance responsibilities variables referenced in research question 4. Multiple regression was used to compute the value of variables found in governance responsibilities that were related to board competency variables and demographic profile variables in research question 5. Based on the results and implications of the analysis, an educational competency program and a fiduciary enhancement program were outlined to enrich board governance.

Ethical Considerations

The researcher sought and was given the approval of the Ethics Research Board to conduct the study. Respondents were assured of strict confidentiality and appropriate steps were implemented throughout the study to ensure this happened.

Results and Discussion

The significant findings are presented in the following tables and discussed based on the research questions.

Level of Board Competency

The respondents' perception of the level of board competency is shown in Table 1. The mean scores revealed a high level of perceived board competency in all areas. The board's role is to review the institution's history, vision/mission, and objectives for the purpose of guiding decision-making as they keep track of their day-to-day course of action.

Table 1 *Descriptive Statistics on the Level of Board Competency*

Area	Mean	*SD*	Scaled Responses	Verbal Interpretation
Strategic Competency	3.21	0.53	Agree	High Competence
Contextual Competency	3.25	0.50	Agree	High Competence
Analytical Competency	3.14	0.55	Agree	High Competence
Political Competency	3.17	0.54	Agree	High Competence
Educational Competency	3.19	0.53	Agree	High Competence
Interpersonal Competency	3.25	0.48	Agree	High Competence
Grand Mean	3.20	0.52	Agree	High Competence

Legend. 3.50–4.00 *Strongly Agree* (High Competence); 2.50–3.49 *Agree* (Moderate Competence); 1.50–2.49 *Disagree* (Slight Competence) 1.00–1.49 *Strongly Disagree* (No Competence).

The results revealed that the perceived level of strategic competency was high. The Board of Trustees projects a good posture of strategic governance by working closely with the Chief Executive Officer and the school administrators to articulate the vision through a strategic plan with an appropriate combination of members' knowledge and skills. They work together towards the realization of an action plan, with periodic review of organizational strategies to accomplish long-term goals.

The contextual competency was also high. This indicated that the board had knowledge of the institution's history, vision/mission, and objectives for the purpose of guiding decision-making as they keep track of their day-to-day course of action. Clawson (2015) in his book "Level Three Leadership" emphasized that for board leadership to become effective, it must consider behaviors, thoughts, values, beliefs, and expectations to understand why people behave the way they do, and influence them in profound ways that move beyond monitoring and constraining behavior. Although the boards were active in this manner, ample time is still needed to discuss the norms, traditions, and values, and to adapt to the distinctive characteristics and culture of each institution's environment.

From the respondents' perspective, their board's level of analytical competency was high, indicating that board members possibly had the analytical capability to postpone board decisions and to seek further information (Improving Board Effectiveness, 2016). When dealing with complex issues, boards are wise to utilize services of consultants, advisory committees, and legal entities to stay informed about significant trends, pitfalls of important issues, as well as to brainstorm and generate creative solutions to problems.

The political competence of boards was assessed, which involved the skill to build relationships with immediate stakeholders. Northouse (2015) emphasized two considerations to maintain a board's political competence for governance and leadership. First is its overall political involvement as a means whereby the board influences its members and stakeholders to accomplish organizational goals through interactive exchange and dialogue (Ingenium Communications, 2013; Mourfield, 2014). The second area of leadership applies to ethical conduct in following the rules of governance. To maintain healthy relationships, the board must uphold the integrity of the governance process and the legitimate roles and responsibilities of other stakeholders (Griffin, 2011). It should often consult and communicate directly with its key constituents (Arslan, 2013; Gentius, 2015). Furthermore, Maricle (2014) emphasized the key importance of communication between the board and the community.

The results revealed that the perceived level of boards' educational competency in selected Seventh-day Adventist Higher Education Institutions was high. The boards regularly reviewed meeting minutes and utilized their terms of reference to guide their deliberations and decisions. They also periodically carved out opportunities for board members to reflect on their work, assess their strengths and limitations, and examine the possible implications of their decision-making.

The results of the study revealed that the perceived level of interpersonal competency was high. Thus, it was thought that the boards favored teamwork as reflected in transparent decision-making, ensuring open communication to resolve problems and opportunities for learning. Nevertheless, there is a need to explore nurturing the development of trustees as a group and strengthening their relationships by organizing events for board members to become better acquainted with each other.

Level of Practices of Fiduciary Governance Responsibilities

The perceived level of board fiduciary governance responsibilities was interpreted as high (Table 2). This outcome was shown in three major areas. First, the board provided the President with substantive support through a working policy that defined his duties and responsibilities in running the institution. Thus, the President was perceived to be an agent of the board with a complete mandate of responsibility, authority, and accountability. Second, the board showed responsibility to keep watch on the quality of the President's performance. This meant making measurable performance evaluations of Presidential accomplishments that included indicators of governance effectiveness and efficiency.

Table 2 *Descriptive Statistics on the Level of Fiduciary Governance Responsibilities*

Statements	Mean	*SD*	Scaled Responses	Verbal Interpretation
Board provides working policy for the duties and responsibilities.	3.32	0.66	Agree	High Practice
Board approves budgetary requirements for physical plant facilities.	3.25	0.68	Agree	High Practice
Board conducts presidential search in full adherence to the criteria.	3.19	0.70	Agree	High Practice
Board works with President to establish new policies, goals, and guidelines.	3.16	0.70	Agree	High Practice
Board reviews policies and guidelines on physical plant facilities.	3.04	0.70	Agree	High Practice
Board evaluates the President's performance.	3.04	0.71	Agree	High Practice
Board conducts a regular review of governance policies.	3.04	0.74	Agree	High Practice
Board reviews the progress of institution against the action plan.	3.03	0.73	Agree	High Practice
Board involves the services of the consultant on plant facility.	2.96	0.72	Agree	High Practice
Board establishes measurable evaluation performance for President's accomplishments.	2.93	0.74	Agree	High Practice
Board measures its effectiveness and efficiency through governance indicators.	2.91	0.74	Agree	High Practice
Board provides clearly defined feedback after President's evaluation.	2.91	0.75	Agree	High Practice
Board evaluates the President's competency through performance appraisal checklist.	2.88	0.74	Agree	High Practice
Board physical plant committee conducts inspection.	2.83	0.72	Agree	High Practice
Grand Mean	3.04	0.51	Agree	High Practice

Legend. 3.50–4.00 *Strongly Agree* (High Competence); 2.50–3.49 *Agree* (Moderate Competence); 1.50–2.49 *Disagree* (Slight Competence) 1.00–1.49 *Strongly Disagree* (No Competence).

When the Board of Trustees determines the President's responsibilities and effectiveness, the following principles must be observed in the evaluation process: The leadership of the President, the management effectiveness, the quality of academic programs and results, the President's relationship with the community, teachers, faculty and staff, administrators, the board of trustees, parents, students, alumni, and the entire constituency. Lastly as an agent, the President is accountable and responsible for the entire institution and the steward of the entire assets of the institution. This is revealed by how he manages the physical plant facilities that can influence its services to its immediate stakeholders.

Arising from Legon's (2014) "Integral Leadership" notion, it follows that there should be an emphasis on the basic fiduciary duties of care, loyalty, and obedience. These principles should frame the board's orientation program to reinforce a degree of accountability for each individual trustee, as well as for the entire board (Governance Handbook, 2015).

Relationship Between Board Competency and Fiduciary Governance Responsibility

Details of the correlation analysis of board competencies and fiduciary governance responsibilities are shown in Table 3.

Table 3 *Correlation Analysis Between Board Competencies and Fiduciary Governance Responsibility*

Competency	***r***	***p***	**Interpretation**
Strategic Competency	.778	.000	Significant
Analytical Competency	.752	.000	Significant
Contextual Competency	.728	.000	Significant
Educational Competency	.794	.000	Significant
Political Competency	.731	.000	Significant
Interpersonal Competency	.709	.000	Significant

Strategic competency contributes to forming strategies and creating an institutional vision. A board with strategic competence can recognize a wider business and societal vision in the context of global markets (Keelin & Arnold, 2002; Ogbechie, 2012). In contextual competency, the board members use cultural and institutional norms to guide institutional behaviors. In analytical competency, the members try to examine the ambiguity and complexity of cases that they face. In political competency, the board's responsibility is to lead the institution to develop good relations with other constituents and organizations. In educational competency, board members understand their role related to governance of the institution. In interpersonal competency, board members form teams to initiate improvements in the board of trustees.

Gender Differences on the Practice of Fiduciary Governance Responsibility

Females showed a significantly higher level of fiduciary governance performance than males (projected Mann-Whitney *U* value obtained was 1067.50; $p = .023$). The results implied that gender diversity increased perceptions of high fidelity about sound decision making and strategies. Female board members are typically perceived to be more compliant with established rules and regulations (Minoletti, 2014). In general, men tend to lead with confidence and aggression. Women prefer to lead with caution and seek holistic approaches. Thus, the benefit of having a mixed board approach is advantageous.

Predictors of Fiduciary Responsibility

The predictors of fiduciary governance responsibilities are shown in Table 4. The significant predictors accounted for 71.4% of the total variance in fiduciary responsibility ($F = 91.75$, $p < .001$).

Table 4 *Predictors of the Practice of Fiduciary Governance Responsibility*

Predictors	**Coefficients**					
	R^2 Change	B	*SE*	β	*t*	*p*
Constant		.295	.168		1.76	.081
Educational Competency	.631	.385	.082	.404	4.70	.000
Strategic Competency	.071	.300	.087	.312	3.44	.001
Analytical Competency	.013	.186	.083	.201	2.24	.027

Three variables predicted the extent to which perceived level of practice influenced fiduciary responsibility. The first variable was educational competency, which strongly influenced fiduciary responsibility and accounted for 63.1% of variance. Strategic and analytical competencies did not project as strong an influence on fiduciary responsibility. The beta weight of educational competency projected a higher value compared to the other variables. The equation predicting fiduciary responsibility was FR = .295 + .385EC + .300SC + .186 AC.

The study results showed the robust ability of educational competency to predict the perceived level of practice of fiduciary responsibility. Educational competency refers to the ability of the board to consciously create opportunities for trustee education, training, and development for all board members to be informed about the institution, roles and responsibilities, and performance expectations in governance functions. These results imply the necessity to strengthen the educational competency of the board of trustees to obtain a high level of practice of fiduciary responsibility.

Conclusions

This study reinforced previous research indicating the significance of six competency dimensions, namely, strategic, contextual, analytical, political, educational, and interpersonal, to enhance governance performance. The results obtained revealed high perceived levels of competencies and practice of governance responsibilities in the institutions surveyed. However, they also showed that improvement is still possible.

Among the six board competencies, educational competency emerged as the strongest predictor of fiduciary governance responsibility. This implied that board leadership, together with school executives, should commit to creating opportunities for trustee education, training, and development. This is to ensure that trustees are knowledgeable and accountable in regard to their fiduciary roles and responsibilities.

Recommendations

Based on these findings, educational competency and fiduciary enhancement programs are recommended. Guidelines and suggested activities are outlined below.

A. Educational Competency Enhancement Program

Educational boards are encouraged to enter a process of continual education that will assist them in making better decisions (Korelich & Maxwell, 2015).

Board Education. The board should initiate a process of continuing education and training as an intentional commitment to enhance board competency performance. Board education is an initiative of educational leaders to lead boards to adopt self-learning activities during board retreats, summits, conventions, conferences, workshops, board forums, and board mentoring. The commitment of boards is to provide a well-planned continuing-education programs that equips the board members to perform their governance functions. Exceptional boards embrace the value of continuous learning in routine governance work and learning activities outside of the boardroom.

Suggested Activities. (a) Formulation and approval of board training and education policy, (b) creation of a Board Development Committee to spearhead the program, (c) assessment of current board member skills and competencies, (d) identification of competency qualification requirements, (e) recommendations of the board's needed skills and expertise, (f) setting participant responsibilities and roles during the training process, (g) implementation of programs and activities by the Board Development Committee, and (h) evaluation of the program by the Board Development Committee.

Suggested Training. The following steps are recommended: (a) Board Orientation—a process of providing the board members with basic information about the institution, the roles and responsibilities of board members, and their governance functions, (b) Leadership Succession Plan—an ongoing practice of the board in defining the school's strategic vision, identifying the leadership and managerial skills necessary to carry out the vision, and recruiting, developing and retaining board members to become effective, (c) Governance Training—a complete program of training in trusteeship that includes all the facets of school governance, (d) In-service Training—continuous training while serving in a trusteeship that is structured carefully with a facilitator to lead out, (e)

Package of Information—a package of information about the institution that is presented to the board members by the school executives, (f) Policies and Legal Liabilities—policies from the Seventh-day Adventist church and governmental legislation that affect the board's governance functions. These must be communicated to the board members at the start of their tenure, (g) Board Meetings—designed to improve the working relationships of board members for unity and collaboration towards common goals, and (h) Code of Conduct for Board Members—expected discipline and behavior of board members to conduct themselves with the utmost integrity, dignity, and accountability.

Desired Outcomes. These outcomes could be as follows: (a) the Board provides a well-planned continuing education program and activities in the form of board retreats, summits, conferences, conventions, workshops, board forum, and mentoring, (b) an increase in the understanding of legal and fiduciary responsibilities, governance functions, policies, and operating procedures among board members, (c) high competence to engage in strategic thinking to guide the institution's direction, (d) engage in deeper inquiry about issues confronting the institution, (e) explore root causes of problems encountered by management, and contribute alternative courses of action and new ideas in solving problems, and (f) develop collegial behavior and team leadership between the board and institutional management.

Responsibilities. For participants, the following duties are proposed: (a) the Board Chair—oversees the planning, implementation, and evaluation of continuing education and training activities. Works in partnership with the Board Development Committee to make sure that its guidelines are carried out effectively, (b) the Board Development Committee—responsible for the overall planning, implementation, and evaluation of board education/training activities. The committee chairperson is selected and approved by the Board, and committee members are selected by the chair in consultation with the Board Chair and approved by the full Board. Terms are for one year, up to a maximum of five consecutive years, and (c) Board Governance Resource Specialists—invited resource persons who provide a full range of training, orientation, and technical support in governance functions to the board members.

Board Orientation. A program ideally will be provided to new board members so that they will have a thorough knowledge of the history, culture, and values of the institution; roles and responsibilities of board members; governance functions, board policies, and operating procedures. It is also a valuable strategy for trustees to re-visit the distinctive characteristics of education and their role in Higher Education Institutions around the world. During the orientation process, the Board Policy Manual provides useful information about the institution's mission, board structure/operations, and other pertinent information about governance functions. Easy access to this material can promote efficiency, accountability, and effective decision-making.

Suggested Activities. These activities include: (a) introduction of the Board Policy Manual to new board members and (b) presentation of the fundamental topics during the orientation program. In presenting the fundamental topics the following details are suggested:

General Information

- History, mission, vision, values, distinguishing institutional features, reputational advantages
- Board structure and processes
- Copy of the constitution and by-laws
- Strategic priorities, goals and objectives
- Summary of programs and services
- List of board members/staff and their contact information

Roles and Responsibilities

- Review board member roles and responsibilities
- Review school executive and officer roles and responsibilities
- Review board committees and their functions
- Discuss board expectations with new Board members
- Discuss board policies and operating procedures

- Discuss financial management and budget procedures
- Discuss fundraising strategies
- Present the current year's budget
- Provide a copy of current and audited financial statements
- Provide a copy of the most recent annual report

Other Information

- Provide copies of minutes from previous board meetings
- Organize a tour of school campus and facilities
- Provide brochures and other promotional materials
- Sign the Oath of Office

Desired Outcomes**.** These outcomes include: (a) the Board orients new members about the school's background, member responsibilities and roles, board policies and operating procedures, the constitution and bylaws, and functions and policies, (b) the Board Policy Manual is introduced during orientation as a guide and reference material, (c) understanding the institution's condition in terms of strengths, needs, challenges, and priorities. Understanding the Seventh-day Adventist philosophy of education and its distinct role in the academic world is also involved, and (d) appreciation of board members' skills, experience, and expertise.

Responsibilities**.** These responsibilities include**:** (a) the Board Chair oversees the orientation process in partnership with the President, Board Development Program Committee, and Governance Committee. The chair also leads out in the orientation process regarding member's roles and responsibilities, board meeting procedures, functional committees, board ethics, and accountability, (b) the President is responsible to orient new board members about institutional affairs, programs and services, staff roles, financial management, budgeting process, core policies and procedures, as well as the plant facilities, and (c) the whole board is responsible to welcome the new board members and serve as mentors for specific committee functions.

B. Fiduciary Responsibility Enhancement Program

A fiduciary responsibility enhancement program for the board is needed to enable regular and objective evaluation of the President's performance in accordance with established guidelines and criteria (Ingram, 2016). The President's performance evaluation should cover the areas of his leadership and management effectiveness, the quality of academic programs and results, and his relationship to school stakeholders and the board (Arslan, 2013; Bernstein et al., 2015).

Evaluating the President. Evaluating the President is one of the most important fiduciary responsibilities of the board. Initially, the board guides and directs the President with a working policy that defines his duties and responsibilities in running the institution. The President is perceived to be the agent of the board with a mandate of responsibility, authority, and accountability. The board shall determine the effectiveness of the President's performance through periodic evaluation that covers the areas of leadership and management effectiveness, the quality of academic programs and results, and the President's relationship with the immediate stakeholders and the board itself.

Suggested Activities. These evaluation activities include: (a) the College President prepares and submits his annual report to the board, (b) the Board Chair gathers information and feedback from constituency representatives through the use of a presidential evaluation form, (c) a formal appraisal discussion occurs in the board with due consideration of the President's annual report; a written summary of feedback from the constituency is also presented, (d) the Board Chair adds his personal evaluation to the presented documents, (e) a summary of appraisals is approved by the board; recommendations are finalized, and (f) post-evaluation feedback is presented by the Board Chair to the President.

Desired Outcomes**.** The suggested desirable outcomes are: (a) the board shall regularly evaluate the President according to established performance guidelines and criteria that cover the following areas: Leadership and management effectiveness, quality of academic programs and results, and relationship to immediate stakeholders and the board of trustees, (b) the President is faithful to his fiduciary responsibilities involving the duties of care, loyalty, and obedience, (c) the President becomes a steward of the institution's entire assets and resources, and (d) a high-quality relationship is maintained between the President and the board.

Responsibilities. The suggested duties of the various entities are suggested as follows: (a) Board Chair—gathers information and feedback from constituency representatives through a presidential evaluation form. Adds his personal evaluation to documents presented in the board, (b) College President—prepares and submits his annual report to the board, (c) Governance Committee—spearheads preparation and submission of documents needed by the full board for formal appraisal/discussion, with due consideration to the President's annual report and a written summary of feedback from the constituency, (d) Committee Chairmen—submit an annual presidential evaluation to the Governance Committee, and (e) selected faculty and workers of the institution, students, alumni, and community representatives participate in evaluating the President during his term of office.

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The Effect of Collaborative Strategic Reading and Reciprocal Teaching on Reading Comprehension Among Middle School Students

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Abstract

This study aimed to: (a) promote reading comprehension skills among middle school English Language Learners (ELL) and (b) determine whether Collaborative Strategic Reading (CSR) or Reciprocal Teaching (RT) was more effective for promoting reading comprehension. In total, 55 ELL students, ages 12–14, were conveniently sampled into one of two cooperative learning technique interventions. Classroom A received CSR instruction while Classroom B received RT. Interventions occurred biweekly for six weeks. A quasi-experimental pre-test, post-test research design was utilized whereby the effects of CSR and RT were investigated based on participants' reading comprehension assessment scores. Pre-test results indicated that CSR participants had an average score of 69.56%, while the RT students averaged 66.57%. At $\alpha = .05$, there was no significant difference between the CSR and RT groups at pre-test ($p = .42$). Then, students in each group received 10 treatment sessions entailing approximately eight hours. The post-test assessment was completed during session 12. Post-test analysis revealed an increase in total score for the CSR group ($M = 5.11$), and this growth is attributed to the improvement in the vocabulary subtest ($M = 16.83$), implying that CSR was beneficial in promoting vocabulary skills. The RT group experienced no statistically significant gains.

Keywords: *Reading comprehension, assessment, cooperative learning, ELL*

Background of the Study

Today, reading comprehension skills play a significant role in individuals' academic success and are integral to their daily lives (Yurko & Protsenko, 2020). Proficient reading skills enable people to access and understand vast amounts of information while empowering them to communicate and actively participate in the world around them. To support this, it is imperative to investigate and implement effective instructional strategies to enhance reading comprehension, particularly among young students. The purpose of this study was to explore the effectiveness of two cooperative learning approaches, Collaborative Strategic Reading (CSR) and Reciprocal Teaching (RT), in promoting reading comprehension skills among English Language Learners (ELLs).

Mikulecky (2011) defines "reading" as a sophisticated conscious and unconscious mental process in which the reader utilizes several strategies to piece together the meaning that the author is presumed to have intended, using information from the literature and readers' pre-existing knowledge. These mental processes are likely the bottom-up, top-down, and interactive models; the latter combines the first two models (Ahmadi & Gilakjani, 2012). These models conceptualize reading as a mental process whereby readers break down the individual components of a language and use their decoded understanding of those components to project an understanding (bottom-up), or readers use their pre-existing knowledge to make predictions about the content of the literature (top-down) (Ahmadi & Gilakjani, 2012). Reading comprehension examines a person's capacity to carry out these mental operations concerning a passage, article, or other written literature. Levine et al. (2000) claimed that having the ability to decipher academic texts accurately is arguably the most essential skill for university students who are learning English as a second or foreign language.

Cooperative learning strategies were chosen because higher levels of achievement are often obtained when cooperation among members is encouraged and practiced, according to Johnson and Johnson (2013). Cooperative learning is "the instructional use of small groups so that students work together to maximize their own and each other's learning" (Johnson & Johnson, 2013, p. 2). Additionally, cooperative learning techniques are rooted in social constructivism learning theory.

According to Mvududu and Thiel-Burgess (2012), constructivism is frequently promoted to assess children's comprehension and demonstrate how that comprehension may grow and be transformed into higher-level thinking. The social constructivism theory, which holds that cognitive development first takes place on a social level before moving to an individual one, underlines the significance of the zone of proximal development. The difference between a person's potential development level and their actual developmental level, as established through problem-solving under adult supervision or in cooperation with peers who are more advanced than they are, is known as the zone of proximal development (Vygotsky, 1978).

Collaborative Strategic Reading is an evidence-based, cooperative learning approach that prioritizes student participation, group collaboration (groups of 3–5 students), and four specific strategies to enhance reading comprehension. The four strategies are *preview*, *click and clunk*, *get the gist*, and *wrap-up*. In *preview*, students draw upon prior information and form predictions after scanning the title, headers, images, and highlighted texts. *Click and clunk* happens during the reading process, whereby students self-monitor their understanding of the text by denoting information they understand (*click*) and content that is challenging for them to comprehend (*clunk*). When readers arrive at a clunk, they can use a few strategies to help them better understand the literature. *Getting the gist* involves finding the passage's main idea and noting any significant information mentioned in the text. The *wrap-up* is the last of the four strategies. It requires students to create inquiries and questions related to the subject matter to increase students' comprehension, knowledge, and memorization of the literature (Abidin & Riswanto, 2012). Successful results for using CSR in promoting reading comprehension skills were discussed 25 years ago when Klingner et al. (1998) reported that CSR promoted the reading comprehension capabilities of 85 young ELLs. Additionally, a more recent study by Gani et al. (2016) yielded qualitative results which found that, alongside reading skills, CSR strengthens social interactions and relationships among the participants.

Similarly, Reciprocal Teaching is a highly structured approach that promotes active engagement with the literature by utilizing four strategies: *Predicting*, *questioning*, *clarifying*, and *summarizing*. *Predicting* requires learners to examine the main title, key headers, graphs, tables, diagrams, or illustrations before reading the passage and connecting what they see with their pre-existing content knowledge so they can make educated guesses as to what they might read about. *Questioning* occurs during the reading process whereby students craft inquiries as a way to self-test their understanding of the literature. Questions are focused on the reading passage's key facts, concepts, and ideas. *Clarifying* entails students applying strategies to understand better any deficits they encounter when reading the passage. This metacognitive skill requires learners to self-audit their level of understanding before incorporating a strategy to help them better comprehend the literature. *Summarizing* is the last strategy utilized in RT and is essential for readers. Students must identify the text's primary concepts and significant points before paraphrasing the content in their own words. Through instruction and modeling of these four strategies, RT empowers students to take a more active role in their learning by fostering metacognitive awareness and self-regulation while comprehending the literature (Doolittle et al., 2006). In a quasi-experimental study, Choo et al. (2011) discovered benefits to their participants' reading comprehension capabilities and social skills. Additionally, the theoretical framework of RT was evaluated in a meta-analysis paper written by Ahmadi and Gilakjani (2012), who stated that RT is an effective tool for teaching reading comprehension skills.

Moreover, gender-related differences have been a subject of interest in the context of reading comprehension. Several studies have indicated that girls typically outperform boys in reading abilities (Chiu & McBride-Chang, 2006; Logan & Johnston, 2010). While the factors contributing to these differences are multifaceted and complex (Miller & McKenna, 2016), it warrants further exploration to understand better and address disparities in educational outcomes. Therefore, this study examined any gender-related variances in the effectiveness of CSR and RT to enhance reading comprehension skills, furthering current subject knowledge in education.

Another aspect that should be considered is how reading comprehension is assessed. Assessments for reading comprehension are typically quiz-like and seek to understand how well a reader can conceptualize the information from the written text. Questionnaires consist of multiple items ranging from locating information at the surface level (like finding the date something happened) to drawing inferences (such as the author's purpose for writing the literature). While reading comprehension typically comprises five components (phonics, phonemic awareness, vocabulary, fluency, all of which ultimately result in reading comprehension—Learning Point Associates, 2004), the reading comprehension assessments were not specifically testing for those components in this study. Instead, the assessments utilized here evaluated students' capabilities to successfully answer questions in the following categories: (a) summarize the main idea and key details, (b) sequence passages ordinally, (c) direct-recall questions, (d) drawing inferences and making predictions, and (e) unfamiliar vocabulary (Smarter Intervention, 2019).

In summary, this study sought to contribute to understanding effective instructional practices by investigating the effectiveness of two cooperative learning approaches, CSR and RT, in enhancing reading comprehension among young ELL students. Both approaches are theorized and documented to promote reading comprehension skills effectively. However, more investigative studies are needed to determine which approach is more effective in promoting reading comprehension skills among ELLs. This study will add to the body of knowledge surrounding both reading comprehension among ELLs, as well as CSR and RT.

Methodology

Research Design

This study utilized a quasi-experimental pre-test, post-test design (Table 1). It is classified as a quasi-experimental experiment because participants could not be randomly allocated into the intervention groups. Students were already conveniently allocated to Classroom A or B and were taught alongside their peers, as is usual in their schooling. The A pre-test was implemented to establish baseline levels of reading comprehension before the CSR and RT interventions were introduced. Post-tests were used to measure the effectiveness of both CSR and RT interventions after six weeks of treatment.

Table 1 *Intervention Design*

Group	Pre-Test	Intervention	Post-Test
CSR	01	10 sessions	02
RT	01	10 sessions	02

Note. Each session was a 50-minute IELTS prep course class. The pre-test and post-test were administered in 50-minute class sessions.

With this quasi-experimental pre-test, post-test research design, all the data gathered was quantitative and was in the form of two separate reading comprehension assessments: One pre-test assessment and one post-test assessment. First, the pre-test data were collected before the intervention to establish the baseline performance level of every participant. A reading comprehension assessment consisting of 23 questions was administered and collected in session one of this study.

Next, the intervention was introduced. Instructions were provided to both Classroom A and Classroom B biweekly. Treatments were done during the students' IELTS prep course, as the content of this research was aligned with the course objectives of the class, improving students reading comprehension capabilities. Both the CSR and RT interventions were identical in duration, as were the research instruments utilized (except for the daily worksheet), and the frequency of data collection. While the reading skills of the two cooperative learning techniques are different, the time allotment for a typical intervention session was similar. The main differences were the reading skills being practiced and the daily worksheet. After 10 intervention sessions (Table 2), the post-test reading comprehension assessment was administered and collected in session 12 of the study. Pre-test and post-test results were analyzed to determine if the interventions effectively promoted the ELL students' reading comprehension capabilities.

Table 2 *Time Allotment for a Typical Cooperative Learning Session*

Duration of Activity	Activity Description
Introduction 5–10 min	Share learning goals, achievement criteria as well as reflecting on the responsibilities of each role
Reading 15–20 min	Individual/paired/partner reading of the assigned text
Analysis 15–20 min	Questions and examination of the text
Plenary 5–10 min	Summarize what was learned and set objectives for the following session

Research Questions

1. What effects do Collaborative Strategic Reading and Reciprocal Teaching have on reading comprehension of 8th grade students?
2. Are the differences in reading comprehension between Collaborative Strategic Reading and Reciprocal Teaching related to gender?

Population and Sampling Technique

A quasi-experimental design was adopted for the study with no control group, where 55 ELL 8th grade students were conveniently assigned to one of two intervention groups—the CSR group (n = 26) or the RT group (n = 29). The participants were selected from a private school in Bangkok, Thailand. These participants were selected using convenience sampling, meaning they were selected based on their availability and willingness to participate in the study. While this sampling technique might be somewhat representative of the population, it was appropriate for the goals of this study and made it possible to recruit participants efficiently. The sample comprised 28 males and 27 females, ages 12 to 14 years old. Most of the students were of Thai nationality, with a few students from other Asian countries. All participants had been learning English as a second language for several years already.

Ethical Considerations

With this study involving middle-school-aged children, the researchers sought and received permission from the University Internal Review Board at Asia-Pacific International University. Additionally, the Head of the English Program at the private school was briefed and signed a consent form approving and authorizing the study. All participants allowed their reading comprehension assessments to be involved in this study, and their personal information was kept confidential. Students who did not wish to participate in the study were free to make that decision without consequence. Furthermore, the researchers were aware that this was a vulnerable population. Care was practiced throughout the whole process. This study was conducted simply for academic purposes.

Instrumentation and Reading Materials

The two research instruments consisted of the pre-test and the post-test. Both reading comprehension assessments were measured at level B1 of the Common European Framework of Reference for Languages (CEFR). The assessment was retrieved from ieltstestonline.com, specifically the CEFR B1 section of the site. The researchers adapted it slightly to incorporate specific assessment components, such as ordinal sequencing. The components of the reading assessment consisted of summarizing the text, sequencing the events of the passage chronologically, answering direct-recall questions, making an inference, and matching vocabulary terms with their definitions or synonyms. It is significant to note that the post-test was similar; the only significant difference was that there was one more comprehension question on the post-test. This was the case because the post-test had a slightly higher word count (pre-test: 434 words, post-test: 477 words). Last, the pre-test and post-test measured students' ability to comprehend an expository text in English.

The articles used during both interventions were selected to be at, if not slightly above, the students' proficiency levels. All articles selected measured either CEFR A2 or B1 level and were either expository or narrative. Expository and narrative reading passages were chosen for this study because Homand and Moughamian (2017) found that ELLs had lower reading comprehension scores when compared to learners who spoke English as their native language; ELL scores were lowest on assessments that utilized informational reading texts. Therefore, in this study informational and narrative reading passages were utilized, as they were deemed challenging for ELLs (Homand & Moughamian, 2017). It should also be noted that students did not have the opportunity to select their reading materials; texts were selected by the researchers.

Analysis of Data

Analysis of variance was utilized to compare the differences in pre-test and post-test assessment scores. Descriptive statistics were used to calculate measures of central tendency, such as the mean, as well as measures of variability, such as standard deviation and range. In addition, inferential statistics, specifically paired-sample *t*-tests, were used to examine the differences between pre-test and post-test scores within each group and between the two intervention groups. The results were organized into tables and figures to represent the data and identify patterns or outliers visually.

Results by Research Question

1. ***What Effects Do Collaborative Strategic Reading and Reciprocal Teaching Have on Reading Comprehension of 8th Grade Students?***

The pre-test evaluated the participants' reading comprehension abilities before the CSR and RT interventions. All 55 students completed both the pre-test and post-test, and the results were analyzed by totaling the subtest scores to obtain a total score for each student. Then, each participant's score was converted to a percentage (total number correct/total number of questions) because the pre-test and post-test differed by one question; the post-test had a higher word count, and an extra question was added. Classroom averages for the pre-test and post-test assessments are displayed in Table 3.

Table 3 *Descriptive Statistics of Test Scores by Group*

Group	N	Pre-Test		Post-Test	
		M	*SD*	*M*	*SD*
CSR	26	69.57	12.30	74.68	13.84
RT	29	66.57	14.84	67.10	20.54

Note. Pre-test group differences ($t(53) = 0.81$, $p = .42$, ES(d) = 0.22; post-test group difference ($t(53) = 1.59$, $p = .12$, ES(d) = 0.43; paired *t*-test (CSR) ($t(25) = -2.04$, $p = .05$, ES(d) = 0.40; paired *t*-test (RT) ($t(28) = -0.205$, $p = .84$, ES(d) = 0.04.

The CSR students had an average score of 69.57% on the pre-test, indicating their reading comprehension skills were not particularly strong. The RT students' average pre-test score was 66.57%. At $\alpha = .05$, there was no significant difference between the CSR and RT groups at pre-test (refer to the note under Table 3). The CSR group's gain score (pre-test–post-test) was 5.11 ($SD = 12.77$). That is, the CSR group improved by 5.11%. This change in score was statistically significant ($p = .05$), suggesting that students in that group significantly improved their reading comprehension after six weeks of CSR instruction. Conversely, the RT group improved by an average of only 0.5% ($SD = 13.95$). The change in overall score was not statistically significant ($p = .84$), and indicated that students under RT instruction did not improve in reading comprehension.

The results of the independent samples *t*-test comparing the CSR and RT groups overall and subtests change scores are reported in Table 4. Overall, there was no significant difference in gain scores between the two groups. And the effect size of 0.34 indicates that the magnitude of the difference was small. Significant gain scores were indicated for inference and vocabulary. Reciprocal Teaching students showed significant growth in inference (M = 20.69) when compared to CSR students (M = -3.85). However, gain scores in vocabulary were significantly higher among CSR students when compared to RT students (p = .054).

Table 4 *The t-Test Results for Comparing CSR and RT Groups' Change in Scores*

Gain Score Area	Group	*N*	*M*	*SD*	*t*	*df*	*p*	ES(*d*)
Overall	CSR	26	5.11	12.77	1.27	53	.211	0.34
	RT	29	0.53	13.95				
Ordinal Sequence	CSR	26	6.15	35.22	0.13	53	.898	0.04
	RT	29	4.83	40.23				
Summarizing	CSR	26	-2.69	18.97	0.26	53	.808	0.07
	RT	29	-4.14	24.25				
Direct Recall	CSR	26	4.17	24.30	0.77	53	.189	0.36
	RT	29	-5.17	27.41				
Inference	CSR	26	-3.85	34.42	-2.16	50.20	.035	-0.57
	RT	29	20.69	49.13				
Vocabulary	CSR	26	16.83	24.39	1.97	53	.054	0.53
	RT	29	3.88	24.22				

2. *Are the Differences In Reading Comprehension Between Collaborative Strategic Reading and Reciprocal Teaching Related to Gender?*

The average of pre-test scores of female students in the CSR group was 70.36, while male students had an average score of 68.98. The pre-test revealed no statistically significant gender difference (p = .79). Similarly, there were no statistically significant gender performance differences at pre-test for the RT group (female: M = 66.30, Male: M = 66.89). Gender differences in gain scores among CSR and RT students are reported in Tables 5 and 6, respectively. Table 5 shows the gain scores for both male and female students in the CSR intervention group in terms of a cumulative assessment total, and the total for each subtest area of reading comprehension. Female students had negative gain scores in subtests for summarizing, direct recall, inference, and overall total, while male students made positive gains in all areas. Male students made significantly higher (p = .022) total gain scores than female students. The magnitude of the gender difference was immense. Male students also made significantly (p = .046) larger gains than female students in the direct recall subtest category.

Table 5 *Gender Differences on Gain Scores (CSR)*

Content Area	Group	*N*	*M*	*SD*	*t*	*df*	*p*	ES(*d*)
Total	Female	11	-1.42	14.34	-2.445	24	.022	0.97
	Male	15	9.90	9.29				
Ordinal sequence	Female	11	1.82	36.28	-.530	24	.601	0.21
	Male	15	9.33	35.35				
Summarizing	Female	11	-10.91	23.10	-2.001	24	.057	0.79
	Male	15	3.33	13.03				
Direct-recall	Female	11	-6.82	22.30	-2.105	24	.046	0.84
	Male	15	12.22	23.12				
Inference	Female	11	-18.18	40.45	-1.913	24	.068	0.76
	Male	15	6.67	25.82				
Vocabulary	Female	11	14.39	28.59	-0.428	24	.672	0.17
	Male	15	18.61	21.70				

In Table 6, gain scores between male and female students in the RT group are reported. Female students appear to have made negative gains in total test scores and three subtest categories (ordinal sequence, summarizing, and inference). However, no significant gender differences in total and subtest categories were detected.

Table 6 *Gender Differences on Gain Scores (RT)*

Content Area	Group	*N*	*M*	*SD*	*t*	*df*	*p*	ES(*d*)
Total	Female	16	-2.24	12.16	-1.197	27	.242	0.45
	Male	13	3.94	15.69				
Ordinal Sequence	Female	16	-1.25	40.97	-0.899	27	.376	0.34
	Male	13	12.31	39.61				
Summarizing	Female	16	-6.67	28.49	-0.616	27	.543	0.23
	Male	13	-1.03	18.38				
Direct-Recall	Female	16	-9.38	25.98	-0.913	27	.369	0.34
	Male	13	.0000	29.27				
Inference	Female	16	31.25	47.87	1.300	27	.205	0.49
	Male	13	7.69	49.35				
Vocabulary	Female	16	2.86	23.51	-0.246	27	.807	0.09
	Male	13	5.13	25.97				

Discussion

The CSR group experienced a significant gain (p = .022) in total scores between the pre-test and post-test. Most of this increase is attributed to the vocabulary subtest, implying that CSR was beneficial in promoting vocabulary skills. This finding is similar to that published by Klingner et al. (1998), who stated that CSR successfully promoted the reading comprehension skills of young English language learners. In their study, 85 fourth-grade students were taught by the researchers to apply four reading comprehension strategies; preview, click and clunk, get the gist, and wrap up. The control group had 56 students who did not learn comprehension strategies but received researcher-led instruction in the same content. The results obtained showed that students in the CSR experimental condition had more robust increases in reading comprehension (p = .001) and equivalent gains in subject knowledge. More recently, a study published by Gani et al. (2016) found that the 32 ELLs assigned to a CSR intervention in Banda Aceh, Indonesia, achieved better scores when compared to the non-CSR group of 35 students. The significance level for this study was $\alpha = .05$, implying that CSR was responsible for the improvement in scores. A qualitative questionnaire was also administered to determine participants' attitudes and perceptions about the CSR technique. It was found that 80% of students in the CSR experimental group provided positive feedback and said that, in addition to fostering better reading skills, CSR provided positive outcomes in participants' social interactions and social relationships in the classroom.

Regarding Reciprocal Teaching, this study did not find anything statistically significant. However, this goes against the findings of other studies, which indicated that RT can be beneficial in improving the reading comprehension capabilities of English language learners. Choo et al. (2011) investigated the relationship between Reciprocal Teaching and reading comprehension. Sixty-eight low-proficiency students participated in their quasi-experimental study. Two classes, consisting of 34 students in total (17 students per class), were assigned to the RT experimental group, while the other 34 students composed the control group. The quantitative and qualitative findings reported indicated that RT was an effective means of fostering reading comprehension skills. Most notable were the qualitative answers submitted on the questionnaire, which showed that 85% of the participants in the RT experimental group responded positively to the reading strategies taught, and 82% claimed they had improved their reading comprehension skills or their language skills in general. There was also a reoccurring theme as to why the participants found the RT strategies beneficial; the common theme cited was teamwork. In 2012, Ahmadi and Gilakjani stated that there was a positive relationship between Reciprocal Teaching and both reading comprehension skills and metacognitive reading strategies. While this was not an experimental study, it investigated the theoretical frameworks composing RT and how the four reading strategies (predicting, questioning, clarifying, summarizing) can impact the reading comprehension skills of English language learners. The findings attested to the theoretical framework of RT as an effective means to foster reading comprehension skills among English language learners.

The findings of our study have presented a compelling and unexpected perspective on the performance of boys and girls in reading comprehension assessments. Contrary to the prevailing literature, which commonly suggests that girls consistently outperform boys in reading comprehension (Chiu & McBride, 2006; Logan & Johnston, 2010), our research uncovered a strikingly different pattern. In this study, we observed that boys outperformed girls on reading comprehension assessments.

These results challenge the widely held assumptions regarding gender-based reading ability and proficiency differences. One possible explanation for the observed discrepancy in our study could be related to the specific instructional strategies and pedagogical approaches employed in the educational settings where the assessments were conducted. The teaching methods utilized might have inadvertently favored boys' learning preferences or strengths, leading to their heightened performance on reading comprehension tasks. Therefore, future research should explore the impact of teaching methodologies and classroom practices on gender differences in reading proficiency.

Furthermore, individual differences within gender groups may be crucial in shaping reading comprehension outcomes. Factors such as prior knowledge, motivation, language background, and socio-economic status might contribute to varying degrees of success in reading comprehension for both boys and girls (Miller & McKenna, 2016). Examining these variables could provide valuable insights into the interplay between gender and reading performance.

In light of the unexpected outcomes of this study, a more balanced and inclusive approach to understanding gender differences in reading comprehension is necessary. Rather than assuming inherent gender disparities, educators and researchers should focus on cultivating a supportive and diverse learning environment that caters to all students' unique needs and strengths, irrespective of gender.

In brief, the present study challenges the prevailing narrative regarding gender differences in reading comprehension and highlights the importance of considering multiple factors that can influence reading performance. One example, given by Miller and McKenna (2016), is the correlation shown between a country's economic development and literacy rates, which indicated that countries with more infrastructure and stronger economies have higher literacy rates. Bangkok, the city from which this study's sample was taken, has enough infrastructure to support a population of 10 million people, supporting the notion that this study's sample may differ from that sampled by Chiu and McBride in 2006. Hence, further investigations are encouraged involving a broader conversation about gender and reading comprehension within the field of education.

Conclusion and Implications

The quasi-experimental pre-test, post-test research design study was undertaken to investigate the effectiveness of two cooperative learning techniques to improve ELL students' reading comprehension skills. The findings revealed that CSR had a slight advantage over RT in enhancing the reading comprehension capabilities of the participants; at α=0.05, the vocabulary acquisition results for the CSR group occurred because of the intervention and not by chance. These results help advance the knowledge of ELL teaching strategies by providing crucial information for researchers and educators involved in studying English language acquisition.

Pedagogical Implications

The pedagogical implications of this study are promising and show that by incorporating CSR into language instruction, educators can foster an enriched learning environment. Using a range of contextually relevant reading materials and specific reading strategies can promote reading comprehension skills among ELLs. Furthermore, utilizing these reading skills can empower learners to independently explore literary texts, which could culminate in a love for reading and language learning. As a result, learners will be better able to understand complex or academic texts, furthering their language competence and ultimately preparing them to be successful in various academic and real-world situations.

Future Research Implications

Additionally, the findings of this study can be expanded upon by researchers to investigate further the variables influencing the efficiency of reading comprehension capabilities of ELLs. Future research endeavors might refine the understanding of which specific components of the cooperative learning techniques are most impactful for improving ELL students' reading comprehension capabilities. Here are a few strengths of the present study to consider for future replication:

1. Pre-test-Post-test Design. Using a pre-test and post-test was a strength because comparing the two groups before and after the CSR and RT interventions was possible. This type of design controls for potential threats to internal validity, like maturation, history, and regression to the mean.
2. Quasi-Experimental Design. A quasi-experimental design was advantageous because it allowed for manipulating independent variables (CSR and RT) while controlling for potential threats to internal validity, such as selection bias and attrition.
3. Adequate Sample Size. A sample size of nearly 60 ELL 8th grade students was a strength because it provided a sufficiently large sample for statistical analyses, which can increase the generalizability of the findings.

Limitations

It is essential to acknowledge the study's limitations, which affected the generalizability of the findings. A more extensive and diverse sample, encompassing various geographic locations and educational settings, would have strengthened the reliability and validity of the results. Chiu and

McBride (2006), who sampled nearly 200,000 young learners across more than 40 countries, found results contradictory to those reported in this study.

In the current study, certain limitations need to be addressed and discussed. Internal validity is arguably the most important, as it refers to the extent to which the research design and methods allow for accurate conclusions about the relationship between the independent and dependent variables (Mills & Gay, 2016). In the context of this study, the relationship between the dependent variable (reading comprehension assessment scores) and the independent variable (CSR and RT interventions) was under examination. This study had several weaknesses to address:

1. Convenience Sampling. Convenience sampling was a weakness because it may have introduced selection bias. Students already assigned to classes may differ in essential ways from the broader population of ELL 8th grade students in Bangkok, Thailand.
2. No Control Group. The lack of a control group was a limitation because it made it difficult to attribute changes in language proficiency solely to the interventions implemented. With a control group, there may be alternative explanations for the observed changes, such as maturation, history, or testing effects.
3. Intervention Duration. The CSR and RT interventions were implemented for six weeks (not including pre-test and post-test), which was a limitation because more time may have been needed for the interventions to have a meaningful impact on language proficiency. A longer intervention period is encouraged and may have provided more robust results.

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SUBMISSIONS

Unsolicited manuscripts are welcomed. Submissions must be in the form of completed articles; partially completed articles are not considered.

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Here are some general guidelines for preparing and submitting articles to *HBDS*.

1. Manuscripts for Submissions

1.1. Manuscripts should be no less than 8 and no more than 12 pages in length.
1.2. Manuscripts should be written in correct and standard academic English.
1.3. Manuscripts should be single-spaced.
1.4. Manuscripts should use Calibri font size 11.
1.5. Manuscripts should contain minimal formatting (bold and italics commands are acceptable).
1.6. Manuscripts should not contain editorial controls of any kind.
1.7. Manuscripts should also contain a 150-200 word abstract of the article. Provide at least three keywords, but do not exceed seven.

2. Suggested Referencing Format

2.1. In order to maintain a consistent look for *Human Behavior, Development and Society*, use of the American Psychological Association (APA) publication guidelines is mandatory. For details, please see the APA Publication Manual (7th edition).
2.2. *HBDS* follows the APA guidelines for endnotes (preferred), in-text citations and references.
2.3. Referencing Samples: Please refer to http://www.apastyle.org/ for questions about referencing, and serialization in the APA format.

3. Submissions Procedure

3.1. Manuscripts submitted to *HBDS* must not have been previously published elsewhere or under review for publication in other journals.
3.2. Manuscripts must adhere to the journal guidelines; failure to comply with these may result in the rejection of a submission.
3.3. Manuscripts must be submitted through the ThaiJo online submission system at https://so01.tci-thaijo.org/index.php/hbds; look for the HBDS web page.
3.4. Manuscripts should be submitted by no later than December 31 for the April issue, April 30 the August issue, and August 31 for the December issue. Nonetheless, even if a submission is received before the stated dates, and is accepted, the journal's Administrative Board reserves the right to decide on the publication date.

4. Review Process

4.1. Manuscripts will be checked for originality and prescreened by the editorial staff to see if their structure, content, and formatting complies with journal standards.
4.2. Manuscripts will undergo a double-blind review process conducted by at least 2 qualified independent peer reviewers who are external to authors' institutions, and knowledgeable in a relevant academic field. This process typically takes from 4–6 weeks, depending on peer reviewer response times.
4.3. Authors will be informed of reviewers' comments as soon as they are available.
4.4. Authors will be given up to 1 month to revise their papers (should that be necessary) and should return the revised version by the 1st of February/June/October (or earlier).

5. Numbers in APA Style

5.1 In general, round decimals to two places with the exception of *p*-values (three decimal places is the limit—$p < .01$ or .001). Percentages are expressed as whole numbers or to one decimal place.
5.2 Rounding rules: If the final number is 5 or more, add one to the last decimal place to be kept (1.565 becomes 1.57). If the number is less than 5, write the number with the required decimal places (2.344 becomes 2.34).
5.3 When a statistical expression cannot exceed the value of 1, then the number reported is NOT preceded by a zero (e.g., with p-values—$p < .01$, also applies to correlations, Cronbach's alpha).
5.4 Large numbers—use commas between groups of three digits in most figures of 1,000 or more.

5.5 Further information can be gained by consulting. James Cook University, Singapore. (n.d.). Numbers in APA. See https://www.jcu.edu.sg/__data/assets/pdf_file/0009/680085/Numbers-in-APA.pdf; Guadagno, R. (2010). Writing up your results – Guidelines based on APA style. Retrieved from https://ich.vscht.cz/~svozil/lectures/vscht/2015_2016/sad/APA_style2.pdf

6. Recommended Verb Tenses for APA Style Articles (p. 118)

Paper Section	Recommended Tense	Example
Literature review (or whenever discussing other researchers' work)	Past Present perfect	Quinn (2020) presented Since then, many investigators have used
Method Description of procedure	Past Present perfect	Participants completed a survey Others have used similar methods
Reporting results	Past	Results were nonsignificant Scores increased Hypotheses were supported
Discuss implications of results	Present	The results indicate
Presentation of conclusions, limitations, future directions, etc.	Present	We conclude Limitations of the study are

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