**HUMANITIES AND
SOCIAL SCIENCES
RESEARCH**

Journal of Humanities and Social Sciences Research

About the Journal

Overview

Horizon Journal of Humanities and Social Sciences Research (JHSSR) is an **open-access academic journal** published by BP Services, independently owned, dependent upon contributions and run on a non-profit basis for the benefit of the world-wide social science community. It neither accepts nor commissions third party content. It is an online scientific journal and does not impose any publication or page fee on authors intending to publish in the journal. It publishes the scientific outputs.

Recognized internationally as a leading peer-reviewed scholarly journal devoted to the publication of original papers, it serves as a forum for practical approaches to improving quality in issues pertaining to social and as well as the humanities.

JHSSR is currently a **bi-annual** (*July* and *December*) periodical that considers for publication original articles as per its scope. The journal publishes in **English** and it is open to authors around the world regardless of the nationality.

The Journal is available world-wide online.

Aim and scope

Horizon Journal of Humanities and Social Sciences Research aims to develop as a pioneer journal for the social sciences with a focus on emerging issues pertaining to the social sciences as well as the humanities.

JHSSR is a principal outlet for scholarly articles. The journal provides a unique forum for theoretical debates and empirical analyses that move away from narrow disciplinary focus. It is committed to comparative research and articles that speak to cases beyond the traditional concerns of area and single-country studies. JHSSR strongly encourages transdisciplinary analysis of contemporary and historical social change particularly in Asia, or beyond by offering a meeting space for international scholars across the social sciences.

Scope of the journal includes HUMANITIES– Field of Languages, Linguistics, Literature, and Education. SOCIAL SCIENCES–Anthropology, Economics, Law, psychology, Political Sciences, sociology, music, sport, and Technology Management.

History and Background

A premier journal in its field, JHSSR was established in 2019, and has been in circulation continuously since then. Horizon is an open access scholarly journal that currently publishes *semi-annually*. The journal uses a stringent yet relatively rapid **double-blind peer-review process**, which translates to benefits such as timeliness of publication, widespread dissemination, high visibility, and likelihood of high citations and broader impacts. JHSSR follows code of conduct stipulated by the Committee on Publication Ethics (COPE).

It primarily publishes for dissemination of academic research meant for scholars and scientists worldwide. We seek to present the cutting-edge innovations and/or latest insights and strive to maintain the highest standards of excellence for JHSSR. The journal publishes on a non-profitable basis and does not have any income from subscription or other sources. It does not impose any publication or page fee on authors intending to publish in JHSSR.

JHSSR is distributed worldwide to more than 1000 institutions via e-alerts, in addition to authors upon request. To provide expert evaluation of the various segments of the broad spectrum of Humanities and Social Sciences research, the editorial office is assisted by scholars who serve as Associate Editors, editorial board members, Emeritus editors and international advisory board members from academic institutions across 35 countries, and ad-hoc reviewers chosen for their expertise. They provide constructive evaluation and, fair and rapid editorial processing. The frequency of citations to articles published in JHSSR by scientists, students, and others increases each year.

To facilitate review, the Editor-in-Chief and the Chief Executive Editor previews all submitted manuscripts and independently or in consultation with an Associate Editor, decides if a manuscript is appropriate for review by members of JHSSR's editorial board and/or *adhoc* reviewers. Manuscripts outside of the scope of JHSSR or those articles in poor English are returned without the delay of a full review, generally within a week of submission. Authors may contact the Chief Executive Editor in advance to inquire about the potential suitability of their research topic for review.

Manuscript submissions and inquiries are encouraged. Manuscript style and formatting are described in the "Instructions to Authors". Manuscript submissions should be made using JHSSR online manuscript submission system, or manuscripts should be mailed through email to the Chief Executive Editor. Direct inquiries to CEE.horizon@gmail.com

Goal

Our goal is to bring the highest quality research to the widest possible audience. Our objective is **"Today's research, tomorrow's impact"**.

Quality

We aim for excellence, sustained by a responsible and professional approach to journal publishing. Submissions are guaranteed to receive a decision within 14 weeks. The elapsed time from submission to publication for the articles averages 3-4 months.

Editorial and International Advisory Board

The editorial and the advisory board of the Horizon has a presence of an international base of renowned scholars from various disciplines of research with diverse geographical background.

Our editorial team is engaged with **universities in 35 countries across the world** including **Australia, Bangladesh, Canada, Fiji, Finland, Germany, India, Iran, Jordon, Lithuania, Malaysia, Morocco, Nepal, Netherlands, New Zealand, Nigeria, Pakistan, Philippines, Portugal, Saudi Arabia, South Africa, Sweden, Taiwan, Thailand, Turkey, United Kingdom, USA,** and **Vietnam**.

Abstracting and indexing of *Horizon*

As is the case with any new journal, indexing in all prestigious relevant databases takes some time, and is heavily dependent upon citations the articles generate.

The Horizon Journal of Humanities and Social Sciences Research (Online ISSN 2682-9096) is a *high-quality, peer-reviewed* academic journal in its field.

It is a Gold Open Access journal and indexed in major academic databases to maximize article discoverability and citation. The journal follows best practices on publication ethics outlined in the COPE Code of Conduct. Editors work to ensure timely decisions after initial submission, as well as prompt publication online if a manuscript is accepted for publication.

Upon publication, articles are immediately and freely available to the public. The final version of articles can immediately be posted to an institutional repository or to the author's own website as long as the article includes a link back to the original article posted on JHSSR. All published articles are licensed under a Creative Commons Attribution 4.0 International License.

The journal has been indexed and abstracted in: SSRN, CrossRef, Directory of Open Access Journals (DOAJ), Google Scholar, EBSCOhost, ProQuest. The journal has been listed in: CiteFactor, Cornel University Library, CrossCheck, DRJI, Journalseek, openaccessarticles.com, Open Access Library, Rubrig, Scirus, Ulrichs. In addition, the journal has been archived in: Academia.edu, National Library of Malaysia, and Malaysian Citation Index (MyCite).

The journal editors and the publisher continue to do their best for this journal to be included in the top abstracting and bibliographic databases around the world; however, for the journal to be indexed in any indexing body is beyond the Journal's direct control. Nevertheless, the journal ensures that the papers published are of high quality. The publisher from time to time recommends the journal to the indexing and abstracting bodies.

The authors must also ensure that the manuscripts they submit to JHSSR are of top quality and are innovative.

Citing journal articles

The abbreviation for *Horizon* Journal of Humanities and Social Sciences Research is ***Horizon J. Hum. Soc. Sci. Res.***

Publication policy

Horizon publishes original work and its policy prohibits an author from submitting the same manuscript for concurrent consideration by two or more publications, and is not under concurrent consideration elsewhere at the time of submitting it to Horizon. It prohibits as well publication of any manuscript that has already been published either in whole or substantial part elsewhere in any language. It also does not permit publication of manuscript that has been published **in full** in Proceedings.

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The author must ensure that when a manuscript is submitted to Horizon, the manuscript is an original work. The author should check the manuscript for any possible plagiarism using any software such as **TurnItIn, i-Thenticate** or any other similar program before submitting the manuscripts to the Horizon journal.

All submitted manuscripts must be in the Journal's acceptable **similarity index range:**
< 25%– PASS; **30-35%**– RESUBMIT MS; **> 35%– REJECT**.

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Code of Conduct

The Horizon Journals takes seriously the responsibility of all of its journal publications to reflect the highest in publication ethics. Thus, all journals and journal editors abide by the Journal's codes of ethics. Refer to Horizon's **Code of Conduct** for full details at the Journal's web link https://horizon-jhssr.com/code-of-conduct.php

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In case of any queries, contact the Journal's Editorial office via email to info@horizon-jhssr.com

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Open access publishing proposes a relatively new model for scholarly journal publishing that provides immediate, worldwide, barrier-free access to the full-text of all published articles. Open access allows all interested readers to view, download, print, and redistribute any article without a subscription, enabling far greater distribution of an author's work than the traditional subscription-based publishing model. Many authors in a variety of fields have begun to realize the benefits that open access publishing can provide in terms of increasing the impact of their work world-wide.

Horizon JHSSR **does not impose** any submission fees, publication fees or page charges for those intending to publish their research in this journal. However, as JHSSR is an open access journal, in norms with all open access journals, the journal imposes an Article Processing Charge (APC). To publish in JHSSR, authors are currently required to pay an APC of **USD100 per article** (*subject to revision*). A waiver to this available for academics with a heavily subsidized fee of USD50 per accepted manuscript.

In addition, this journal offers discount on Article Processing Charges to authors based in any of the countries which were classified by the World Bank as Low-income economies or Lower-middle-income economies. All requests can be sent directly to the journal's Chief Executive Editor.

In an open access model, the publication costs of an article are paid from an author's research budget, or by their supporting institution, in the form of Article Processing Charges. These Article Processing Charges replace subscription charges and allow publishers to make the full-text of every published article freely available to all interested readers. In addition, authors who publish in JHSSR open access journal retain the copyright of their work, which is released under a **"Creative Commons Attribution 4.0 International License,"** enabling the unrestricted use, distribution, and reproduction of an article in any medium, provided that the original work is properly cited.

However, in case of a print version, if it is necessary for the figures to be reproduced in color, a charge of USD50 per figure will apply.

International Standard Serial Number (ISSN)

An ISSN is an 8-digit code used to identify periodicals such as journals of all kinds and on all media–*print and electronic*. All Horizon journals have an e-ISSN.

Horizon Journal of Humanities and Social Sciences Research: **e-ISSN 2682-9096**.

Lag time

A decision on acceptance or rejection of a manuscript is reached in 3 to 4 months (average 12 weeks). The elapsed time from submission to publication for the articles averages 4-5 months.

Authorship

Authors are not permitted to add or remove any names from the authorship provided at the time of initial submission without the consent of the Journal's Chief Executive Editor. Requests for changes to authorship must be directed to the journal's chief executive editor. Changes in authorship will only be permitted where valid reasons are provided and all authors are in agreement with the change. Post-publication changes to authorship will typically be made via a published correction and authors may be charged for this additional service.

One author will need to be identified as the corresponding author, with their email address normally displayed in the article. Authors' affiliations are the affiliations where the research was conducted. If any of the named co-authors moves affiliation during the peer-review process, the new affiliation can be given as a footnote. Please note that no changes to affiliation can be made after your paper is accepted.

Manuscript preparation

Refer to Horizon's **Instructions to Authors** at the back of this journal or visit
https://horizon-jhssr.com/manuscript-prepparation.php

A well-formatted manuscript follows all journal instruction. All elements of the manuscript are printed in English with 1-inch margins at top, bottom, and sides. Right margins are unjustified. Horizon journals accept manuscript submissions which uses any consistent text— Format-free Submission! This saves you time and ensures you can focus on your priority: the research.

However, citations/ references must be formatted by you as per APA format.

Checklist for Manuscript Submission

- Cover letter
- Declaration form
- Referral form
- Manuscript structure

(Title, Author details and affiliation, Abstract, Keywords, etc. using the **IMRAD** style).

Each submission must fulfil the following criteria and documents listed below must be submitted along with the manuscript for intended publication.

1) **Cover letter**
   Your cover letter should be complete and make a strong pitch. The cover letter should include all these details:

   - Author(s): Full contact details (email, institutional address, telephone number, etc.) of all authors listed including who the corresponding author will be [full name(s) written as First Name then Last Name]. Understand the differences between lead author and co-author(s). Lead-author: who has done most of the research and writing; Co-author: Has collaborated with the lead author and contributed some parts.
   - A brief explanation of your article's relevance and impact.
   - Disclosure of whether you have published this study previously elsewhere or if it is in consideration by another journal.
   - Disclosure of any commercial or financial relationship that may be viewed as any potential conflict of interest.
   - A brief statement explaining why the journal should publish your study.

   (Refer to sample available at https://horizon-jhssr.com/download.php).

2) **Declaration form**
   Do not forget to complete the declaration form and submit it along with your manuscript. Sign the declaration that your manuscript is original, you have NOT published this study previously elsewhere in any language and is not under concurrent consideration elsewhere at the time of submitting it to Horizon.

3) **Referral form**
   The authors are strongly recommended to complete the "Reviewers Suggestion" form along with the manuscript during submission. Authors should suggest up to 3 names of potential reviewers experts in the subject area of the manuscript, and are not the co-authors listed in the manuscript submitted. The suggested reviewers may be from any part of the world. The journal is not, however, bound by these suggestions.

4) **Language and flow**
   A well-written manuscript has greater chances of acceptance. Some tips:

- Avoid long, complicated sentences; keep it simple. Your sentences should be understandable.
- Your ideas should flow smoothly.
- Use correct terminology, avoid excessive jargon and grandiose language.
- Make sure there are no grammatical mistakes.
- It is highly recommended to approach an editing service for help with polishing your manuscript. The journal has a long-term proven affiliation with a good certified editor at Beyond Proofreading Services PLC.

You may contact **Dr. Brown at Beyond Proofreading,** beyondproofreading@gmail.com at your own discretion.

Language Accuracy

JHSSR **emphasizes** on the linguistic accuracy of every manuscript published. Articles must be in English and they must be competently written and argued in clear and concise grammatical English. Contributors are strongly advised to have the manuscript checked by a colleague with ample experience in writing English manuscripts or a competent English language editor.

Author(s) **should provide a certificate** confirming that their manuscripts have been adequately edited. A proof from a certified editing service should be submitted together with the cover letter at the time of submitting a manuscript to Horizon.

All editing costs must be borne by the author(s). This step, taken by authors before submission, will greatly facilitate reviewing, and thus publication if the content is acceptable.

Refer to JHSSR's **Manuscript Format guide** at https://horizon-jhssr.com/online-submission.php

Editorial process

Authors are notified with an acknowledgement containing a *Manuscript ID* upon receipt of a manuscript, and upon the editorial decision regarding publication.

JHSSR follows a **double-blind peer-review process**. Authors are encouraged to suggest names of at least three potential reviewers at the time of submission of their manuscript to Horizon using the **Referral form**. The editors are not, however, bound by these suggestions.

The Journal's peer-review

In the peer-review process, three referees independently evaluate the scientific quality of the submitted manuscripts.

Peer reviewers are experts chosen by journal editors to provide written assessment of the **strengths** and **weaknesses** of written research, with the aim of improving the reporting of research and identifying the most appropriate and highest quality material for the journal.

The Review process

What happens to a manuscript once it is submitted to *Horizon*? Typically, there are seven steps to the editorial review process:

1. The Journal's chief executive editor and the editorial board examine the paper to determine whether it is appropriate for the journal and should be reviewed. If not appropriate, the manuscript is rejected outright and the author is informed. Linguistically hopeless manuscripts will be rejected straightaway (e.g., when the language is so poor that one cannot be sure of what the authors really mean).

2. The chief executive editor sends the article-identifying information having been removed, to three reviewers. Typically, one of these is from the Journal's editorial board. Others are external specialists in the subject matter represented by the article. The chief executive editor requests them to complete the review in three weeks.

   Comments to authors are about the appropriateness and adequacy of the theoretical or conceptual framework, literature review, method, results and discussion, and conclusions. Reviewers often include suggestions for strengthening of the manuscript. Comments to the editor are in the nature of the significance of the work and its potential contribution to the literature.

3. The chief executive editor, in consultation with the Editor-in-Chief, examines the reviews and decides whether to reject the manuscript, invite the author(s) to revise and resubmit the manuscript, or seek additional reviews. Final acceptance or rejection rests with the Editor-in-Chief, who reserves the right to refuse any material for

publication. In rare instances, the manuscript is accepted with almost no revision. Almost without exception, reviewers' comments (to the author) are forwarded to the author. If a revision is indicated, the editor provides guidelines for attending to the reviewers' suggestions and perhaps additional advice about revising the manuscript.

4. The authors decide whether and how to address the reviewers' comments and criticisms and the editor's concerns. The authors return a revised version of the paper to the chief executive editor along with specific information describing how they have answered' the concerns of the reviewers and the editor, usually in a tabular form. The author(s) may also submit a rebuttal if there is a need especially when the author disagrees with certain comments provided by reviewer(s).

5. The chief executive editor sends the revised paper out for re-review. Typically, at least one of the original reviewers will be asked to examine the article.

6. When the reviewers have completed their work, the chief executive editor in consultation with the editorial board and the Editor-in-Chief examine their comments and decide whether the paper is ready to be published, needs another round of revisions, or should be rejected.

7. If the decision is to accept, an acceptance letter is sent to all the author(s), the paper is sent to the Press. The article should appear in print in approximately three months.

The Publisher ensures that the paper adheres to the correct style (in-text citations, the reference list, and tables are typical areas of concern, clarity, and grammar). The authors are asked to respond to any minor queries by the Publisher. Following these corrections, page proofs are mailed to the corresponding authors for their final approval. At this point, **only essential changes are accepted**. Finally, the article appears in the pages of the Journal and is posted on-line.

SUBMISSION OF MANUSCRIPTS

Owing to the volume of manuscripts we receive, we must insist that all submissions be made electronically using the **online submission system™**, a web-based portal. For more information, go to our web page and <u>click</u> **"Online Submission"**.

Please do **not** submit manuscripts to the Editor-in-Chief or to any other office directly. All submissions or queries must be directed to the **Chief Executive Editor** via email to <u>CEE.horizon@gmail.com</u>

Visit our Journal's website for more information at <u>https://horizon-jhssr.com/index.php</u>

Do not raise the bar unnecessarily by exaggerating requirements for successful publication, but rather encourage young researchers to try and experiment. Researchers can raise their ambition level through gained experience.

ABSTRACTING/INDEXING
As is the case with any new journal, indexing in all prestigious relevant databases takes some time. Horizon inspires to be a member of: Committee on Publication Ethics (COPE).

The journal has been indexed and abstracted in EBSCO, DOAJ, Google Scholar, ISC, Rubriq, National Library of Malaysia and MyAIS.

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Journal of Humanities and Social Sciences Research
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Contents

FOREWORD

Editor's Foreword and Introduction to Vol. 6 (1) Jul. 2024

Welcome to the **first special issue** issue of Horizon Journal of Humanities and Social Sciences Research (JHSSR) for 2024. JHSSR (eISSN 2682-9096) is a peer-reviewed, open-access journal committed to delivering innovative research to both academia and practicing professionals. Independently owned and published by BP Services, we operate on a **not-for-profit** basis to benefit the global social science community. [Find out more here](#).

In this issue, we present a diverse collection of **14 articles**, encompassing a broad spectrum of topics and research methodologies.

Service. Integrity. Excellence

The first paper, an invited piece by Distinguished Professor Kirpal Singh from Singapore, titled "The Imperative for Integrating Creative Thinking into Higher Education: A Call for Transformation," explores the necessity of incorporating creative thinking in education amidst the rise of Generative AI. Singh emphasizes the need for a shift from traditional analytical approaches to foster genuine innovation and address the complexities of the modern world.

Our second paper, "Indian and Vietnamese Buddhism: Similarities and Differences" by Dr. Trần Thị Vân Dung from Vietnam and Professor Nayan Deep Singh Kanwal (USA), provides a comparative analysis of the historical and doctrinal evolution of Buddhism in India and Vietnam. This study highlights the cultural exchanges and unique adaptations of Buddhism within Vietnamese society.

The next nine papers are original research articles, starting with "ESL Teachers' Perspectives on Differentiated Instruction for Quality Inclusive Education" by Melanie Khor Wei Chen and Professor Gurnam Kaur Sidhu (Malaysia), which examines the implementation of differentiated instruction in the Malaysian ESL context.

This is followed by Dr. Devinder Pal Singh's "Impact of Artificial Intelligence on Science-Religion Dialogue" (Canada), which discusses how AI influences the interaction between science and religion.

Tian Jie (China) and Professor Ng Soo Boon (Malaysia) present "The Impact of Critical Thinking Disposition on University Students' English Writing Proficiency," exploring the correlation between critical thinking and writing skills.

Xi Yang (China) and Professor Nooreiny Maarof (Malaysia) delve into "Influence of Post-Method Pedagogy on Chinese EFL Teachers' Perception of Teaching Approach," highlighting the practical application of post-method pedagogy in underdeveloped regions of China.

Karishma Agarwal and Nishant Ketu (India) contribute "Anthropogenic Impact on the Lake Ecosystem," emphasizing the need for conservation and management of urban lakes.

Heng Si Yun Bethany, Anna Phang Wai Leng, and Siew Siew Kim (Malaysia) discuss sustainable development in preschool education in "Preschool Teachers' Perceptions on Classroom Practices to Sustain Environmental Education Development."

Ali Mohammed Ali Al Breiki, Serge Gabarre, and Cecile Gabarre (Sultanate of Oman) investigate the use of Google Docs in peer assessment in "The Effect of Peer Assessment Using Google Docs on Omani Grade Ten Students' Writing Performance."

Associate Professor Tania Afrin Tonny (Bangladesh) and Oluwakemi Favour Bayewu (Nigeria) explore gender inclusivity in entrepreneurship in "Women's Entrepreneurship Development in Bangladesh: A Gender Perspective."

Waseem Ahmad Bhat and Shazia Majid (India) analyze bureaucratization and religious freedom in Southeast Asia in "Mapping Bureaucratization of Religion in Southeast Asia: Historical Trends and Contemporary Implications."

Professor Brij Mohan (USA) presents an opinion piece, New Intolerance: Dialectic of Freedom, exploring societal tensions and the rise of exclusionary authoritarianism.

Associate Professor Jade Charon Robertson (USA) offers practical solutions for underfunded predominantly Black institutions in "Empowering Dance and Technology Education: 10 Vital Steps for Implementation in Underfunded Spaces within Predominantly Black Institutions.

Lastly, Chen Haixia (China) and Professor Ng Soo Boon (Malaysia) examine the impact of innovation and entrepreneurship education on student entrepreneurial intentions in "Evaluating the Impact of Innovation and Entrepreneurship Education on Sustaining Student Entrepreneurial Intentions: A Case Study in Chongqing, China."

We hope this diverse collection of research enriches your understanding and inspires further inquiry in the fields of humanities and social sciences.

In conclusion, this issue of JHSSR offers a wealth of knowledge and insights across various disciplines, reflecting the journal's commitment to fostering diverse and impactful research. We encourage you to explore these articles, engage in critical discussions, and share this valuable resource with your peers and students.

As we celebrate the journal's accomplishment of surpassing **1,289 submissions**, with only 236 accepted and published, we acknowledge the rigorous standards maintained in the review process. This high acceptance rate reflects our commitment to ensuring the publication of high-quality research that aligns with the journal's scope and contributes significantly to the academic community.

Our Quality

All the papers except the book-review published in this edition underwent a rigorous yet relatively rapid **double-blind peer-review process** involving a minimum of three reviewers comprising internal as well as external referees, which translates to benefits such as timeliness of publication, widespread dissemination, high visibility, and likelihood of high citations and broader impacts. This was also to ensure that the quality of the papers justified the high ranking of the journal, which hopes to be one at par with one of the renowned and heavily-cited journals not only by authors and researchers in Malaysia and America but by those in other countries around the world as well.

While I hope this issue will have particular appeal to new readers across this region and beyond, I am confident that the articles published will raise interest among our regular readership of scholars and postgraduate students elsewhere, thanks to the relevance and diversity of contributions on a region whose future bears central importance to us all.

I would also like to express gratitude to all the contributing authors for their trust, patience, and timely revisions, who have made this issue possible, as well as the reviewers and editors for their professional contribution. Last but not least, the assistance of the journal's editorial office in Texas, particularly Jessica Whitsitt, Lucy Fernandez, and Judy Meester—my adorable assistants, is greatly appreciated.

The Editorial Board of JHSSR welcomes your contributions and looks forward to many years of fruitful research to come. We continue to welcome submissions in all fields of humanities and social sciences. Horizon JHSSR is currently accepting manuscripts for its **second 2024 issue** based on original qualitative or quantitative research that opens new areas of inquiry and investigation. Empirical articles should demonstrate high rigor and quality. Original research collects and analyses data in systematic ways to present important new research that adds to and advances the debates within the journal's fields. The editors hope that the authors publishing in this journal can support the noble cause of JHSSR in reaching its goals.

JHSSR also invites call for proposals for 2024-25 Special Issues. Our journal aims to provide a platform for researchers and technical experts to publish original papers, reviews and communications on all aspects of humanities and social sciences research. We strive to maintain a high standard of scientific objectivity, and we ensure that all submitted articles undergo a stringent yet relatively rapid double-blind peer-review process, which translates to benefits such as timeliness of publication, widespread dissemination, high visibility, and likelihood of high citations and broader impacts. Alongside a mission-driven Editor-in-chief, the globally diverse Editorial Board works with prominent scientific community to create a fast moving and rigorous editorial reviews. JHSSR follows code of conduct stipulated by the Committee on Publication Ethics (COPE). Proposals can be submitted directly via email to cee.horizon@gmail.com

Let me conclude by saying that with the publication of this issue, we are now completing six years of continuous and successful scholarly publication of Horizon JHSSR. Changing publishing norms and expectations have given rise to a new wave of publishing standards that we'll be riding into 2024 soon and beyond. I am confident that the upcoming year will bring yet another challenging year of emerging scholarly articles.

Only time will tell what the next decade has in store, but one thing for sure is we will likely see greater innovation in all areas of scholarly publishing with emphasis on A.I. If you are observing other scholarly publishing trends, please do share your thoughts with the Chief Executive Editor!

Thank you for your continued support. We hope you find these articles thought-provoking and valuable in your academic pursuits, and look forward to further enriching the scholarly discourse in future issues.

Best regards,

Chief Executive Editor

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Journal of Humanities and Social Sciences Research

The Imperative for Integrating Creative Thinking into Higher Education: A Call for Transformation

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ARTICLE INFO

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ABSTRACT

Introduction The rapidly evolving technological landscape, notably with the advent of Generative AI, necessitates a transformative shift in education and thinking. Traditional analytical approaches have often stifled in-depth comprehension of complex issues, leading to adverse consequences such as increased depression and distress among younger and older generations. **Methods** A comprehensive review of current educational paradigms and their impact on students' mental well-being was conducted. Surveys were analyzed to understand the relationship between traditional analytical pedagogy and creative problem-solving in tertiary institutions. Additionally, the need for a shift towards creative thinking was explored through a combination of qualitative and quantitative data. **Results** The analysis revealed that traditional educational models prioritize conformity over creative thinking, which has led to significant mental health issues. Surveys consistently showed that students thrive in environments that encourage creativity. The demand for creative thinkers has increased with the new millennium, prompting the emergence of innovative pedagogical approaches and technologies. **Discussion** The findings underscore the necessity of a new way of thinking to address the challenges of survival and progress effectively. There is a growing emphasis on creative problem-solving in tertiary education, highlighting the limitations of conventional analytical methods. Concerns about unrestrained creativity were acknowledged, yet the importance of fostering creativity to overcome societal challenges was emphasized. **Conclusion** The article advocates for the introduction of Creative Thinking as a subject in universities and the establishment of a dedicated School of Creative Thinking. This shift will foster genuine innovation, ensuring academic institutions produce forward-thinking individuals capable of addressing the complexities of the modern world.

1. INTRODUCTION

As humanity stands on the brink of unprecedented change, driven by the rapid advancements in technologies such as Generative AI, there is a growing recognition of the need for a fundamental shift in how we think and operate. This paper argues for the urgent necessity of incorporating Creative Thinking into educational curricula, particularly in higher education, to address the challenges of our rapidly evolving world (Mohan, 2023a; Zakaria, 2024).

2. PROBLEM STATEMENT

The current educational model, deeply rooted in analytical and logical methodologies, has become increasingly inadequate in fostering the innovative and adaptive skills required in today's dynamic environment. The resistance to change within educational institutions stifles both imagination and reason, creating a breeding ground for anxiety and distress, particularly among younger and older generations (Mohan, 2023b; Robinson, 2006; Watson, 2019).

3. METHODOLOGY

This study employs a mixed-methods approach, combining qualitative insights from educators and students with quantitative data from surveys assessing the impact of creative thinking curricula on student performance and well-being. Random and targeted surveys were conducted across various educational levels to compare the effectiveness of traditional analytical approaches versus creative thinking methodologies.

4. FINDINGS

The data reveal a clear correlation between the encouragement of creative thinking and improved student outcomes (Csikszentmihalyi, 1996; Zakaria, 2024). Environments that foster creativity not only enhance academic performance but also contribute to better mental health and overall well-being. These findings challenge the traditional emphasis on analytical thinking and highlight the need for a more balanced approach that integrates creative problem-solving skills (Amabile, 1996; Mohan, 2023a).

5. DISCUSSION

The resistance to adopting new pedagogical approaches is a significant barrier to progress. However, as industries increasingly demand innovative and adaptable thinkers, the imperative for educational institutions to evolve becomes undeniable. The transition from a predominantly analytical focus to a more creative one is essential for preparing students to navigate and succeed in a complex, rapidly changing world (Sawyer, 2006; Watson, 2019).

6. CONCLUSION

The integration of creative thinking into educational curricula is not merely an option but a necessity for survival and progress in the 21st century. Establishing dedicated programs and schools for Creative Thinking within universities will provide the foundation for a more innovative and resilient society. By embracing this shift, educational institutions can better equip students to meet the challenges of the future, fostering a generation of thinkers capable of driving meaningful change (Mohan, 2023b; Robinson, 2006; Sternberg, 2003; Watson, 2019).

Recommendations

1) *Curriculum Development*: Universities should develop and implement courses focused on Creative Thinking, ensuring they are an integral part of the educational journey from early stages to advanced levels.

2) *Faculty Training*: Educators should be trained to foster creativity in their teaching methodologies, moving beyond traditional didactic approaches.

3) *Institutional Support*: Educational institutions must provide the necessary resources and support systems to encourage creative exploration and innovation.

4) *Research and Evaluation*: Ongoing research should be conducted to continuously assess the impact of creative thinking programs on student performance and well-being, allowing for iterative improvements.

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An internationally recognized scholar, Singh's research spans post-colonial literature, Singapore and Southeast Asian literature, literature and technology, and creative thinking. His critical writings have appeared in esteemed journals such as Ariel, Diogene, Commonwealth Novel in English, Literary Criterion, Quadrant, Southern Review, and Westerly. He has participated in international writers' festivals in Adelaide, Cambridge, Edinburgh, Toronto, and Kent, where he has given readings of his works.

Prof. Singh holds the distinction of being the first Asian and non-American director on the board of the American Creativity Association (ACA), where he has also served as Vice-President and Chairman since 2006. With over 150 articles and essays to his name, he is an authority in various literary fields. Currently, he is actively involved in promoting creative thinking in Singapore's undergraduate education system at Singapore Management University and shares his futuristic visions with global audiences as an esteemed Futurist.

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REVIEW ARTICLE
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Indian and Vietnamese Buddhism: Similarities and Differences

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ABSTRACT

Introduction: India and Southeast Asia have a rich history of cultural exchanges and trade relationships, significantly impacted by transnational migration and cross-cultural movements (Woodward, 2004; Van, 2020). This study explores the Indian cultural influence on Southeast Asia, particularly focusing on the introduction and development of Buddhism in Vietnam. **Methods**: Through a historical and doctrinal analysis, this research examines primary and secondary sources, including inscriptions, ancient texts, and scholarly articles. The study adopts a comparative approach to trace the evolution of Buddhism in both India and Vietnam, analyzing key philosophical tenets, ritual practices, and socio-cultural impacts. **Results**: The maritime commercial network in Asia during the first two centuries of the Common Era facilitated the spread of Buddhism into Vietnam, strengthening commercial and cultural ties between India and Vietnam (Taylor, 2017). Northern Vietnam became a center for Buddhist learning, attracting pilgrims and missionaries. Vietnamese Buddhism uniquely did not integrate Hindu gods, aligning more closely with Confucianist and Taoist traditions. An inscription from 875 C.E. documents the construction of a Buddhist temple and monastery by Indravarman II, marking a significant event in the history of Vietnamese Buddhism (Nguyen Lang, 2000). **Discussion**: The study reveals shared doctrinal foundations rooted in early Indian Buddhism and their evolution within Vietnam's unique cultural context (Ariyaratne, 2010). While Indian Buddhism influenced Vietnamese practices, Vietnam adapted Buddhism to fit its own cultural ethos, resulting in both intersections and divergences in Buddhist development (Taylor, 2017; Dao, 2018). **Conclusion**: This research enhances the understanding of Buddhism's historical journey and fosters cross-cultural dialogue. It highlights the intricate interactions between Indian and Vietnamese cultures, demonstrating the selective adoption of elements consistent with Vietnamese beliefs. The study contributes to appreciating the diversity within the global Buddhist community and the nuanced influence of Indian culture on Southeast Asian Buddhism.

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1. INTRODUCTION

Buddhism, originating in ancient India, has spread across various regions, including Vietnam (Taylor, 2017). This paper examines the shared foundations and unique characteristics of Indian and Vietnamese Buddhism, shedding light on their historical development and doctrinal variations.

India, of course, is the proud home to Bodh Gaya, where Lord Buddha attained enlightenment in the 5th century and gave his first preaching in Saranth, Varanasi.

Buddhism, an ancient Indian religion originating in the Kingdom of Magadha (now Bihar, India), is based on the teachings of Gautama Buddha, known as the "Awakened One," with Buddhist doctrine acknowledging previous Buddhas.

Buddhism, with its profound philosophical teachings and profound impact on diverse cultures, stands as a beacon of spiritual wisdom across the globe. This scholarly paper embarks on a nuanced exploration of the intricate tapestry woven by Indian and Vietnamese Buddhism, endeavouring to unravel the shared threads and unique patterns that characterize each tradition. Rooted in the ancient soil of India, Buddhism traversed geographical and cultural landscapes, finding a second home in Vietnam.

One of the most striking features of Vietnamese Buddhism lies in the close relationship with Taoist and Confucian traditions.

Vietnam, a multi-ethnic country with 54 ethnic groups living together in peace, has unique values custom, tradition, and culture. Buddhism is the most popular religion in the country.

As we embark on this comparative journey, our aim is to illuminate the interconnectedness of these traditions while acknowledging the distinct imprints each has left on the spiritual, philosophical, and cultural tapestry of its host society. The historical evolution, doctrinal foundations, and ritual expressions of Buddhism in India and Vietnam form the focal points of our inquiry, providing a comprehensive understanding of the shared legacy and nuanced diversities (Taylor, 2017; Van, 2020) that enrich the global Buddhist heritage. Through this exploration, we hope to contribute to the scholarship of Buddhism, fostering a deeper appreciation for the shared values and unique expressions that have emerged from the encounter of Buddhism with distinct cultural milieus.

2. METHODOLOGY

This scholarly investigation employs a comprehensive comparative approach, encompassing historical research,

doctrinal analysis, and cultural examination to delve into the intricate tapestry of Indian and Vietnamese Buddhism (Woodward, 2004; Van, 2020). The study meticulously integrates primary sources, such as ancient texts and archaeological findings, along with secondary literature. These sources are critically reviewed to identify the subtle nuances, shared elements, and distinctive features embedded within the Buddhist traditions of India and Vietnam.

The literature review serves as the foundational framework for our study, encompassing a thorough exploration of existing scholarship on Indian and Vietnamese Buddhism. This involves delving into historical accounts, doctrinal expositions, and comparative analyses conducted by esteemed scholars in the field (Taylor, 2017).

The historical analysis section traces the evolution of Buddhism in India and Vietnam, unravelling its trajectory from its origins to contemporary manifestations (Le Manh That, 2006). Scrutinizing primary historical sources, archaeological records, and inscriptions, we aim to discern the socio-cultural contexts that have intricately shaped these distinct Buddhist traditions.

A detailed examination of Buddhist doctrines constitutes a pivotal aspect of our methodology. Canonical texts from both the Pali and Mahayana traditions undergo scrutiny to unveil the philosophical tenets, ethical principles, and ritual practices that both bind and distinguish the Buddhist traditions in India and Vietnam.

Praying, one of the most important customs of Buddhism religion in Vietnam is done by prostrating oneself or bowing with hands clasped to their foreheads from a standing or seated position in front of an image of Buddha.

The Golden Pagoda Temple (Kong Mu Kham) in Namsai, Arunachal Pradesh, India, is a stunning example of Burmese architecture with 12 domes, built in 2010 and set in the Himalayan foothills over 20 hectares.

Incorporating an exploration of the cultural and ritual dimensions of Buddhism, our study moves beyond textual analysis to understand the lived experiences of practitioners. Ritual practices, art, iconography, and cultural expressions associated with Buddhism in each region are examined to provide a holistic perspective. Examination of Buddhist doctrines involves scrutinizing canonical texts from Pali and Mahayana traditions to unveil philosophical tenets, ethical principles, and ritual practices in both regions (Ariyaratne, 2010). Cultural and ritual dimensions of Buddhism are explored, moving beyond textual analysis to understand practitioners' lived experiences. Ritual practices, art, iconography, and cultural expressions associated with Buddhism in each region are examined (Dao, 2018).

The study adopts a structured comparative framework to systematically analyse the identified similarities and differences. Utilizing comparative matrices and thematic charts, we organize and present the findings, offering a clear visual representation of the nuanced relationships between Indian and Vietnamese Buddhism.

By adopting this multifaceted methodology, we aspire to unravel the complex tapestry of Indian and Vietnamese Buddhism, shedding light on the interconnectedness and distinctive features that have shaped these rich traditions over millennia.

3. DISCUSSION

The comparative analysis conducted on Indian and Vietnamese Buddhism unveils a rich tapestry woven with shared elements and distinctive features that have evolved over time. This section delves into a comprehensive discussion of the key findings, elucidating the implications and significance of both observed similarities and differences.

Doctrinal Convergences: The examination of doctrines reveals compelling convergences between Indian and Vietnamese Buddhism. Fundamental principles like the Four Noble Truths, Eightfold Path, and the concept of impermanence resonate profoundly in both traditions. The influence of Indian philosophical schools, particularly the impact of Mahayana doctrines,

is evident in Vietnamese Buddhist thought (Taylor, 2017). This discussion scrutinizes key Buddhist doctrines, emphasizing their interpretations and practices in both Indian and Vietnamese contexts.

Cultural Adaptations: While doctrinal similarities are evident, the study emphasizes significant cultural adaptations that set Vietnamese Buddhism apart. Localized rituals, art, and iconography demonstrate the integration of indigenous beliefs and practices, contributing to the distinctive flavour of Vietnamese Buddhist expression. This cultural syncretism is particularly evident in the assimilation of ancestor veneration and indigenous spiritual elements. The exploration delves into how Buddhism has seamlessly integrated with local cultures, rituals, and traditions in both India and Vietnam (Van, 2020).

Historical Dynamics: The historical analysis uncovers the dynamic evolution of Buddhism in both regions. Indian Buddhism flourished and diversified, giving rise to various schools and sects, while Vietnamese Buddhism underwent unique developments influenced by socio-political shifts (Taylor, 2017), including Chinese domination and later, French colonial influence. These historical trajectories have indelibly shaped the character of Buddhism in each region. The discussion explores the spread of Buddhism from India to Vietnam and traces its historical development in both regions.

Cultural Context and Ritual Practices: The exploration of cultural and ritual dimensions highlights the embedded nature of Buddhism in the daily lives of practitioners. Ritual practices in Vietnam, influenced by Confucian and Daoist traditions (Dao, 2018), exhibit a syncretic blend, contrasting with the more orthodox expressions in India. The integration of Buddhism into cultural practices underscores its adaptive nature in response to diverse socio-cultural milieus.

Implications for Cross-Cultural Understanding: The findings of this study hold significant implications for fostering cross-cultural understanding and appreciation. Recognizing shared doctrinal foundations while appreciating nuanced cultural adaptations enhances global awareness of the diversity within Buddhist traditions (Woodward, 2004; Taylor, 2017; Van, 2020). This comparative analysis contributes to the broader discourse on intercultural dialogue, emphasizing the dynamic nature of religious traditions in diverse cultural contexts.

In conclusion, the discussion unveils the intricate interplay between doctrinal continuity and cultural adaptation in Indian and Vietnamese Buddhism. This comparative exploration deepens our understanding of the rich tapestry of Buddhist traditions, transcending geographical boundaries, and fostering a global appreciation for the diverse expressions of a shared spiritual heritage.

3.1 Some critical points of Buddhism

Buddhism encompasses a diverse set of beliefs and practices, and opinions on its critical points can vary among different Buddhist traditions. However, there are some key concepts and principles that are often considered central to Buddhism (Mohan, 2024). Here are some critical points of Buddhism:

3.1.1 The Four Noble Truths:
- **Dukkha** (Suffering): Life is characterized by suffering, dissatisfaction, and un-satisfactoriness.
- **Samudaya** (Origin of Suffering): The cause of suffering is craving or attachment.
- **Nirodha** (Cessation of Suffering): Suffering can be ended by eliminating craving and attachment.
- **Magga** (Path to the Cessation of Suffering): The Eightfold Path leads to the cessation of suffering.

3.1.2 The Eightfold Path:
- **Right View**: Having an accurate understanding of the nature of reality.
- **Right Intention**: Developing good and compassionate intentions.
- **Right Speech**: Speaking truthfully and avoiding harmful speech.
- **Right Action**: Engaging in ethical and non-harmful actions.
- **Right Livelihood**: Choosing a livelihood that aligns with ethical principles.
- **Right Effort**: Cultivating positive mental states and overcoming negativity.
- **Right Mindfulness**: Being aware of thoughts, feelings, and actions.
- **Right Concentration**: Developing focused and concentrated mental states.

3.1.3 **Impermanence** (Anicca): The understanding that all phenomena are impermanent and subject to change.

3.1.4 **No-Self** (Anatta): The concept that there is no permanent, unchanging self or soul.

3.1.5 **Karma**: The law of cause and effect, where actions have consequences that affect future experiences.

3.1.6 **Samsara**: The cycle of birth, death, and rebirth that individuals go through.

3.1.7 **Nirvana**: The ultimate goal, representing the cessation of suffering and liberation from the cycle of rebirth.

3.1.8 **Compassion (Metta) and Loving-Kindness**: The practice of cultivating love, kindness, and compassion for all beings.

3.1.9 **Mindfulness** (Sati): Being present and aware in the current moment, a crucial aspect of Buddhist meditation.

3.1.10 **The Middle Way**: Avoiding extremes and finding a balanced approach in life.

It's important to note that these points provide a general overview, and interpretations and emphases can differ among the various Buddhist traditions, such as Theravada, Mahayana, and Vajrayana. Additionally, individual practitioners may prioritize different aspects based on their understanding and practice within Buddhism.

3.2 Critical Points of Buddhism in India compared with that in Vietnam

Critical points of Buddhism in India and Vietnam can be understood through examining key aspects of the religion in each region. While Buddhism shares foundational principles, the way it is practiced and integrated into the cultural context can vary. Here are critical points of Buddhism in India compared with that in Vietnam:

3.2.1 Buddhism in India:
1. Diversification of Schools:
   - India played a crucial role in the historical development and diversification of Buddhist schools, giving rise to Theravada, Mahayana, and Vajrayana traditions.
   - The rich philosophical diversity within Indian Buddhism led to the emergence of different doctrinal schools, each with its interpretation of Buddhist teachings.
2. Influence on Indian Philosophy:
   - Buddhism significantly influenced the broader landscape of Indian philosophy, engaging in dialogues and debates with other philosophical schools such as Hinduism, Jainism, and Ajivika.
3. Sacred Sites and Monuments:
   - India is home to numerous sacred Buddhist sites and monuments, including Bodh Gaya, where Siddhartha Gautama attained enlightenment, and Sarnath, where he gave his first sermon.
   - The architecture and art associated with Indian Buddhism have a distinct historical and cultural significance.
4. Integration with Hinduism:

   - In certain regions of India, there has been an integration of Buddhist practices with Hindu traditions. Some deities, rituals, and festivals are shared between the two religions.
5. Decline and Revival:
   - Buddhism experienced a decline in India, attributed to factors like the decline of royal patronage and the revival of Hinduism.
   - In contemporary times, there have been efforts to revive and preserve Buddhist heritage in India, and several regions with a historical Buddhist presence continue to be significant pilgrimage sites.

3.2.2 Buddhism in Vietnam:
1. Cultural Syncretism:
   - Vietnamese Buddhism exhibits a unique feature by not attempting to integrate Hindu gods, aligning more closely with Confucianist and Taoist traditions.
   - Cultural syncretism is evident in the integration of indigenous beliefs, ancestor veneration, and local rituals with Buddhist practices.
2. Historical Development under Chinese Rule:
   - Vietnam's historical development of Buddhism was influenced by periods of Chinese rule, shaping the nature of Buddhist practices and institutions in the region.
   - Chinese cultural and religious influence, including the spread of Confucianism and Daoism, played a role in shaping Vietnamese Buddhism.
3. Impact of French Colonial Rule:
   - French colonial rule in Vietnam had an impact on Buddhism, affecting the monastic system and leading to changes in the organizational structure of Buddhist institutions.
   - The socio-political context of colonialism influenced the practice and preservation of Buddhism in Vietnam.
4. Ancestor Veneration:
   - Ancestor veneration is an integral part of Vietnamese Buddhism, reflecting the syncretic blend of Buddhism with indigenous beliefs and cultural practices.
   - This cultural aspect distinguishes Vietnamese Buddhism from certain expressions in India.
5. Contemporary Adaptations:

- Vietnamese Buddhism continues to adapt to contemporary socio-cultural contexts, with an emphasis on engaging with modern challenges and addressing the needs of the community.

Understanding these critical points helps appreciate the nuances of Buddhism in India and Vietnam, showcasing the diversity within the broader framework of Buddhist traditions.

The temple in the Central region, Vietnam

Pagodas in the South (Vietnam)

Pagodas in the North (Vietnam)

Pagodas in the North (Vietnam)

3.3 Similarities and Differences between Buddhism in India and in Vietnam

The comparison between Buddhism in India and Vietnam reveals both significant similarities and distinctive features shaped by the unique historical, cultural, and social contexts of each region. Here are some key similarities and differences:

3.3.1 Similarities:
1. Doctrinal Foundations:

- Both Indian and Vietnamese Buddhism share common doctrinal foundations rooted in early Buddhist teachings, such as the Four Noble Truths and the Eightfold Path.
- The influence of Indian philosophical schools, particularly Mahayana doctrines, is evident in Vietnamese Buddhist thought.

2. Philosophical Tenets:
   - Fundamental principles like impermanence, non-self (anatta), and the nature of suffering (dukkha) are central to both traditions.

3. Cultural Adaptation:
   - While there are adaptations to local cultures, both traditions demonstrate a capacity for cultural integration, as seen in rituals, art, and iconography.

4. Spread of Buddhism:
   - Buddhism spread from India to Vietnam, influencing the cultural and spiritual landscape in both regions.
   - Historical records reflect the establishment of Buddhist practices and institutions in both areas.

3.3.2 Differences:

1. Cultural Syncretism:
   - Vietnamese Buddhism exhibits a distinctive feature by not attempting to integrate Hindu gods, aligning more closely with Confucianist and Taoist traditions. This is different from some forms of Buddhism in India, where Hindu deities might be incorporated.

2. Historical Development:
   - The historical trajectories of Buddhism in India and Vietnam differ. Indian Buddhism experienced diversification into various schools and sects, while Vietnamese Buddhism underwent unique developments influenced by Chinese domination and later, French colonial rule.

3. Ancestor Veneration:
   - Vietnamese Buddhism incorporates ancestor veneration and indigenous spiritual elements, reflecting a syncretic blend with local beliefs. This is a cultural adaptation not necessarily found in the same form in Indian Buddhism.

4. Inscriptions and Monuments:
   - Historical inscriptions in Vietnam, such as the one from 875 C.E., recount the installation of a Buddha image and construction of a Buddhist temple. Such inscriptions may have cultural and historical nuances distinct from those found in ancient Indian Buddhist inscriptions.

5. Cultural Practices and Influences:
   - Ritual practices in Vietnam are influenced by Confucian and Daoist traditions, leading to a syncretic blend that contrasts with more orthodox expressions in India.
   - The integration of Buddhism into cultural practices in Vietnam underscores its adaptive nature in response to diverse socio-cultural milieus.

6. Socio-Political Context:
   - The socio-political context of Vietnam, including periods of Chinese rule and later French colonial influence, has shaped the development of Vietnamese Buddhism in ways different from the socio-political history of India.

These points highlight the dynamic nature of Buddhism, illustrating how the same foundational principles can manifest differently based on the historical, cultural, and regional contexts in which they evolve. It's essential to recognize the diversity within Buddhism and appreciate the unique contributions of each cultural expression.

4. CONCLUSION

In elucidating the parallels and distinctions between Indian and Vietnamese Buddhism, this paper significantly contributes to a profound understanding of the diverse manifestations of Buddhism across the two cultural landscapes. The acknowledgment of these variations enriches our appreciation for the dynamic nature of Buddhist traditions as they seamlessly adapt to local contexts. It emphasizes shared doctrinal principles and cultural adaptations, acknowledging the enduring universality of Buddhist philosophy (Taylor, 2017).

In conclusion, the comparative exploration of Indian and Vietnamese Buddhism provides a nuanced comprehension of the intricate interplay between doctrinal foundations and cultural adaptations within these vibrant traditions. The study reveals both striking similarities and distinctive features, showcasing the dynamic evolution of Buddhism across geographical and cultural terrains.

The shared doctrinal principles, rooted in the teachings of the Buddha, underscore the enduring universality of Buddhist philosophy. The Four Noble Truths, Eightfold Path, and the impermanence of existence act as unifying threads binding these traditions together. The influence of Indian Mahayana doctrines is discernible in the philosophical underpinnings of Vietnamese

Buddhism, highlighting the interconnectedness of these traditions.

However, the study accentuates the unique cultural adaptations that have moulded Vietnamese Buddhism. The integration of indigenous beliefs, rituals, and artistic expressions reflects a syncretic blend that distinguishes Vietnamese Buddhism from its Indian counterpart. Cultural context plays a pivotal role in shaping the lived experiences of Buddhists in each region, with rituals and practices mirroring the broader socio-cultural milieu.

The historical dynamics further contribute to the distinctive character of these traditions. Indian Buddhism, boasting diverse schools and sects, stands in contrast to the historical trajectory of Vietnamese Buddhism, influenced by Chinese domination and later, French colonial rule. These historical contingencies have left an indelible mark on the development and expression of Buddhism in each region.

This comparative study carries broader implications for fostering cross-cultural understanding and appreciation. By recognizing the shared doctrinal heritage while appreciating cultural diversity, it contributes to the global dialogue on religious traditions. The adaptive nature of Buddhism in response to varied cultural contexts serves as a testament to its resilience and relevance in an ever-changing world.

In essence, the exploration of Indian and Vietnamese Buddhism transcends geographical boundaries, offering valuable insights into the intricate relationship between spirituality, culture, and history. As we conclude this comparative journey, it is evident that both traditions contribute to the rich tapestry of global Buddhism, inviting further exploration and dialogue in the pursuit of wisdom and understanding.

4.1 Limitations of the Study

While this comparative exploration of Indian and Vietnamese Buddhism offers valuable insights into the complex interplay of doctrinal foundations and cultural adaptations, it is essential to acknowledge certain limitations including reliance on historical texts and potential biases in source material selection (Woodward, 2004; Taylor, 2017) that may influence the interpretation and generalization of findings.

Scope and Depth of Analysis: The study primarily relies on historical texts, religious scriptures, and scholarly works, limiting the scope of first-hand empirical data. A more extensive analysis incorporating ethnographic research and contemporary interviews could provide a richer understanding of the lived experiences of Buddhists in both regions.

Language Barriers: The availability and accessibility of primary sources in multiple languages, including Pali, Sanskrit, Vietnamese, and others, may pose challenges. This linguistic diversity could introduce inherent biases in the selection of source materials, potentially influencing the comprehensiveness of the comparative analysis.

Historical Gaps: Despite comprehensive efforts to trace the historical evolution of Buddhism in India and Vietnam, there may be gaps in historical records or discrepancies in interpretations. Uncovering nuanced historical details, especially during periods of political upheaval or cultural transitions, presents inherent challenges.

These language barriers and historical gaps may affect comprehensiveness, and cultural nuances influencing Buddhist practices may not be fully captured (Van, 2020).

Cultural Sensitivity: The study acknowledges the complexity of cultural dynamics but may not capture the entire spectrum of cultural nuances influencing Buddhist practices. Variations in regional cultures, subcultures, and individual interpretations may not be fully accounted for within the confines of this comparative framework.

Temporal Considerations: The examination primarily focuses on historical developments and may not fully capture contemporary manifestations of Buddhism in India and Vietnam (Taylor, 2017). Rapid socio-cultural changes and globalization could influence the current landscape of Buddhism, necessitating further research to explore these dynamics.

Interpretive Challenges: Despite efforts to maintain an objective stance, interpretations of doctrinal similarities and cultural adaptations may be subject to the researcher's biases. The diverse perspectives within Buddhism and the intricate nature of cultural syncretism may present challenges in achieving a wholly objective analysis.

Generalizability: While the study aims to provide insights into the broader dynamics of Indian and Vietnamese Buddhism, the findings may not be entirely generalizable to all sub-traditions or local variations within these regions. The diverse nature of Buddhist practices necessitates caution in applying findings universally.

Acknowledging these limitations enhances the transparency and scholarly rigor of the study, paving the way for future research endeavours to address these constraints and further enrich our understanding of the intricate relationship between Buddhism, culture, and history in India and Vietnam.

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ESL Teachers' Perspectives on Differentiated Instruction for Quality Inclusive Education

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ARTICLE INFO

ABSTRACT

Introduction: The Malaysian Education Blueprint (MEB) 2013-2025 introduced differentiated instruction to address the diverse needs of students in a heterogeneous classroom, aligning with 21st-century learning goals. This paper aims to assess teachers' knowledge and understanding of differentiated instruction within the Malaysian ESL context to support inclusive education. **Methods:** A descriptive research design was employed, involving 96 respondents from 20 public secondary schools in the Northeast district of Penang. Data were collected through surveys to evaluate teachers' perceptions, levels of implementation, and understanding of differentiated instruction. **Results:** The findings revealed that teachers generally held positive perceptions towards the implementation of differentiated instruction. However, the actual level of implementation was perceived to be only moderate. Further investigation indicated that teachers harbored several misconceptions about differentiated instruction, reflecting limited knowledge and understanding of its principles and practices. **Discussion:** The study highlights the gap between teachers' positive perceptions and their moderate implementation levels of differentiated instruction. Misconceptions and limited knowledge among teachers suggest the need for targeted professional development to enhance their understanding and effective application of differentiated instruction in the classroom. **Conclusion:** While teachers in the Malaysian ESL context are positively inclined towards differentiated instruction, their implementation is hindered by misconceptions and limited understanding. Addressing these issues through comprehensive training programs is crucial for fostering an inclusive education environment that meets the diverse needs of all learners.

1. INTRODUCTION

Inclusive education (IE) is a philosophy and approach that aims to provide all students with equitable access to education. It was reported that 26% of countries cover the definition of IE to only people with disabilities or special needs (UNESCO, 2020). Through the authors' perspective, IE represents education for all – regardless of identity, background and ability which resonates with the fourth Sustainable Development Goal (SDG) for ensuring inclusive and equitable quality education along with lifelong learning. Malaysia, among other 192 countries that adopted the 17 SDGs has aligned the Malaysian Education Blueprint (MEB) 2013 – 2025 to the fourth SDG, in an effort to promote quality education. Featured in the MEB blueprint, are six key attributes that are deemed crucial for every student to possess to be globally competitive.

One of the essential key attributes focuses on bilingual proficiency, as Malaysia's national language is Bahasa Malaysia while English plays the role of the

international language for communication. Despite that, the role of English in Malaysia has occasionally shifted over the years to be on par with the Malaysian education system as a result of the nature and history of the country. Badiozaman (2019) argued that the Malaysian education system has always been impelled by national aspirations and politics. Similarly, Adnan (2005) pointed out that the political aspect of English within the Malaysian Education system is inextricably woven into the subject of nationalism and power, and Malaysia is facing a dilemma between maintaining the status of the national language whilst raising the standard of English. This phenomenon itself is channelled into the learning of English in ESL classrooms over Malaysia where some students are unmotivated to learn English, and as a result, students of mixed English language abilities exist.

Hence, in an effort to raise the standard of English and to sustain inclusiveness amid learner diversity, the concept of differentiated teaching was introduced in the MEB 2013 - 2025, in which learners' needs are catered to. To put it simply, differentiated instruction is related to student's readiness, interests, learning profile or preferred modes of approaching learning activities (Mahoney & Hall, 2017). Thus, differentiation is a form of inclusion because it aims to maximise the learning of all students regardless of their abilities, cultural beliefs, socio-economic status, and identity to name a few. Despite that, Ramli and Yusoff (2020) have found that traditional teaching methods which are teacher-centered are still influencing instructions. On the same thread, Kaur (2017) speculates that the reason most teachers in Malaysia do not incorporate differentiated instruction into their classrooms is due to the lack of knowledge and understanding. Most importantly, to date, there is limited research conducted in the Malaysian context related to differentiated instruction, even though it is advocated in the Malaysian Education Blueprint 2013 – 2025.

With that in mind, the main aim of this paper is to examine teachers' knowledge and understanding of differentiated instruction and their perception of the implementation of differentiated instruction in the Malaysian ESL context. Hence, this study seeks to answer the following research questions:

1. What are the ESL teachers' knowledge and understanding of differentiated instruction?
2. What are the ESL teachers' perceptions of differentiated instruction?

2. LITERATURE REVIEW

The "one-size-fits-all" approach in teaching and learning is thought to be an ineffective means of delivering instruction because it only aims to meet students in the middle while students at the high and low continuum are not effectively challenged. A mixed-ability class is one in which learners are taught together in the same class, although they differ in their abilities (Kaur, 2010). The word "ability" refers to the skill or intelligence an individual possesses to do something. Hence, the term 'mixed ability' can be understood as varying levels of skills or intelligence

Teachers practising differentiated instruction are encouraged to view ability or intelligence as malleable or in other words, having a growth mindset (Baker, 2020). This is crucial, as noted in the words of Dweck (2006) who states that people who practice a growth mindset "may appreciate endowment, however they admire effort, no matter the ability because effort is the fuel for igniting ability and turns it into accomplishment".

2.1 Differentiated Instruction

According to Tomlinson (1995) and Hall (2002), differentiated instruction can be defined as a framework of philosophy used for teaching learners with mixed-ability levels in a classroom whilst the role of the teacher is to utilize and modify various instructional strategies to address the needs of the learners with regard to the heterogeneity present. Rooted in the principles of educational equity, differentiated instruction seeks to provide all learners with meaningful learning experiences that promote engagement, understanding and mastery. Likewise, Tomlinson (1999) views differentiated instruction as an instructional approach that aims to maximise each student's growth by recognising that students have different ways of learning, different interests, and different ways of demonstrating understanding.

On the other hand, Shareefa et al (2019) provided a simplified definition of differentiated instruction citing that it facilitates the standards of inclusion and adapted learning. Similarly, for quality inclusive education for all to be successful, all learners must benefit and the beneficial value in differentiated instruction lies in the wide range of instructional strategies and availability of support while providing an appropriate balance of challenge and success to learners. Tomlinson (2001) further justified that for effective differentiation to occur, instruction is proactively planned and is robust enough to address a range of learner needs, in contrast to planning a single approach for every student and reactively trying to adjust the lesson when it has become apparent that lesson is not working for some learners. This entails that, for differentiated instruction to be successful, the task before the teacher includes good knowledge of each student's educational and historical background, interests and learning ability (Ikwumelu et al., 2015). From this awareness and understanding,

the teacher customises and modifies learning activities and curriculum to meet the learners' competency for academic achievement. By doing so, every learner can achieve the same learning goals; however, they take different paths (Aftab, 2015).

2.2 Content, Process and Product

To provide quality inclusive learning for all students in a classroom, instruction can be differentiated in three ways, that is commonly known as content, process and product. Content encompasses knowledge, understanding and skills and it consists of what the students need to learn and how the students get access to the information within the necessary time (Kaur, 2017). In other words, content is simply known as the "input" of teaching and learning. For example, in the context of an ESL classroom, the teacher may use reading materials at varying readability levels according to the student's readiness.

Process means sense-making or the opportunity for learners to digest the content, ideas and skills (Tomlinson, 2001). To put it simply, process is synonymous with activity. Process is crucial because when learners come across new information, ideas or skills, they require time to run the input through their respective filters for meaning (Tomlinson, 2001). Tomlinson (2001) also asserted that activity or process achieves full power as an avenue for learning only when it is directly focused on a part of something essential that learners are required to know, understand and be able to do as a result of a particular content input. In essence, an effective activity is designed to aid learners in progressing from a current level of understanding to a more advanced level of understanding (Tomlinson, 2001).

Products are vehicles that allow learners to demonstrate and develop what they have learnt (Tomlinson, 1999). To clarify, Tomlinson (2001) states that unlike process, which is typically short and focuses on one or a few main skills or understanding, product is a long-term endeavour that allows learners to review, apply and extend over a period of time. The purpose of product is to stretch learners' understanding and skills concerning quality, hence Tomlinson (2001) suggests that teachers need to determine ways to assist students in reaching new heights of possibility as the assignment progresses. For instance, if the product assignment is about figurative language devices in poetry, the teacher may conduct workshops and arrange time for brainstorming sessions before letting students craft their poetry. Tomlinson (2001) posits that the goal in providing such a form of scaffolding is to anticipate what is essential to lift the learners' sights as they progress.

2.3 Readiness, Interest and Learning Style

For effective quality inclusive learning via differentiated instruction, it is pertinent that instructors first seek to understand their learners in terms of their level of readiness, interest and learning style.

Tomlinson (1999) defined readiness as a student's entry point in relation to a particular understanding or skill. Tomlinson et al., (2003) supported Vygotsky's (1978) theory of zone of proximal development (ZPD) in response to student readiness. ZPD is a term that refers to a point of required mastery that cannot be achieved by learners alone but is achievable with scaffolding or support. It is believed that in this range, new learning will take place and the job before the teacher is to drive the student to his or her ZPD level, to subsequently coach them for success while providing a task that is slightly more complex than their current knowledge or understanding (Tomlinson et al., 2003). ZPD ties with readiness because the main idea is to propel the student towards their growth in learning. To assess readiness, the teacher is encouraged to provide a pre-assessment before teaching a new topic or skill, to proactively plan for future lessons.

Moving on, interest includes a student's curiosity, attention, and involvement towards the content. Harackiewicz et al., (2016) viewed interest as a psychological state of attention which is characterised by an increase in attention, effort and affect, experienced in a particular moment towards a particular object or topic, and an enduring predisposition to reengage over time. The implication for differentiated teaching in relation to interest is for teachers to teach new materials according to students' interests, in order to assist them in understanding new information and skills by making connections with things they already find captivating, stimulating, pertinent, and worthwhile. Hence, an educator's preparation in differentiating process through interest can contribute to an engaged, motivated learning experience in students.

On the other hand, the learning profile describes students' preference for receiving, exploring and processing content (Tomlinson & Imbeau, 2010, p.17). Mantiri (2013), rationalized that learning styles are concerned with cognition, conceptualization, affect and behaviour because students perceive and acquire knowledge differently; form ideas and think differently and differ in emotional responses and values. This is well supported by Gardner's (1983) theory of multiple intelligences as he put forward the idea of the "pluralistic view of mind" which proposed that the human mind is made up of several intelligences and accounts for the way individuals think and act. Thus, the purpose of differentiating through learning profile is to impart content in ways that students learn best and most

effectively according to their preferred mode of learning or their intelligences as proposed by Gardner.

3. MATERIALS AND METHODS

This study employed a descriptive design, which involved twenty (20) randomly selected secondary public schools located in the North-East (Timur Laut) district of Penang, a state in Peninsular Malaysia. Once permission was obtained from the relevant authorities and schools concerned, data were collected via an online questionnaire employing Google Forms, due to restrictions from the ongoing Covid-19 pandemic. The final sample size after the data cleaning process yielded a total of 96 English language teachers who consented to be participants in the study.

The questionnaire was constructed based on information obtained from literature reviews and journal articles on differentiated instruction and inclusive education. The questionnaire consisted of three sections. Section A consisted of five items which examined respondents' demographic profiles. On the other hand, Section B comprised 12 items aimed at investigating the respondents' knowledge and understanding of differentiated instruction. Meanwhile, Section C comprised 21 items that examined the respondents' perception of the implementation of differentiated instruction in their ESL classroom.

To establish the content validity of the questionnaire, the questionnaire was screened and validated by a panel of two experts, namely, an English Language professor with more than 40 years of experience in the field of TESL and research under her belt whilst the other was an experienced practitioner who has been teaching English in secondary schools for more than 15 years. The reliability of the questionnaire was measured via a pilot test and measured utilising Cronbach's alpha score via the Statistical Package for Social Sciences (SPSS) software version 27.0 for Mac OS. The questionnaire obtained a value of 0.95 which indicates that the items in the questionnaire are closely related and are therefore considered reliable.

Keeping in line with research ethics, prior permission was obtained from the schools involved and informed consent was presented to the participants beforehand. To maintain the anonymity of the respondents, each respondent was coded using a numeral. For instance, R32 referred to Respondent number 32. Lastly, the data collected was stored in a password-protected laptop that can only be accessed by the researchers.

4. RESULTS

The following section provides the main findings of the study which aimed to examine teachers' knowledge and understanding of differentiated instruction and their perceptions on the implementation of differentiated instruction in the Malaysian ESL context.

4.1 Demographic Profile of Respondents

The study involved 96 secondary school English teachers from 20 public schools in the Timur Laut district of Penang. The majority of the respondents were female teachers (82.3%) while male teachers were in the minority (17.7%). In terms of teaching experience, most of the teachers have more than 20 years of experience (65.6%) in teaching English as a second language while the remaining have less than 20 years of experience (34.4%). For the teaching level, more than half of the teachers are teaching upper secondary students (61.5%) while the rest are teaching lower secondary students (38.5%). Furthermore, it was revealed that a large number of teachers are TESL trained (80.2%) and a minority of them were originally trained in other subjects but are currently teaching English (19.8%).

4.2 Teachers' Knowledge and Understanding of Differentiated Instruction

Section B of the questionnaire examined teachers' knowledge and understanding of differentiated instruction based on ten (10) true or false items and two (2) open-ended items. The teachers' knowledge and understanding were investigated based on the following scale: limited knowledge (0% – 25%), fair knowledge (26% – 50%), good knowledge (51 – 75%), and very good knowledge (76% – 100%). Table I below presents the percentage of correct responses for the true or false items.

Based on the given scale, it can be noted that the respondents have very good knowledge and understanding of differentiated instruction as their overall score was 87.1%. However, it was discovered that despite answering relatively well in the true or false statements, most of the respondents could not articulate their knowledge and understanding in their own written words. Minimal explanations and very short responses were given for the two (2) open-ended items. The first question posed requires respondents to share their understanding of differentiated instruction.

Table 1. Percentage of correct responses for the true or false items

Constructs	Percentage
Principles of Differentiated Instruction	34.8
Elements of Differentiated Instruction	27.6
Students Needs	24.7
Total	87.1

Source: *Authors*

Interestingly, only a few of the responses, associated differentiated instruction to tiered activities. While tiered activities, are one of the many ways teachers can differentiate instruction through process, it is not the sole strategy. For instance, some excerpts taken from the respondents illustrate the notion:

"Provide various materials for each level of English proficiency" (R04).

"The teacher uses different worksheets for students with different ability level" (R14).

The remaining respondents provided answers that illustrated the basic idea of what differentiated instruction is but not to the full extent. As a start, one of the respondents mentioned that differentiated instruction is teaching based on the students' needs but did not provide a clearer explanation of what students' needs are. Another respondent (R11) mentioned that, differentiated instruction refers to diversifying instruction and assessment to help students acquire knowledge effectively while a different respondent stated that differentiation aims to accommodate diverse abilities. From here, it can be seen that the respondents managed to grasp the main notion of what differentiated instruction is, only to a certain extent. For example;

"Developing teaching materials and assessment so that students can learn effectively regardless of their ability" (R87).

"Provides a range of avenues for students to acquire information" (R75).

Tomlinson (2017) stated that the premise is to understand that not all students will always find the same avenues to learning equally engaging, relevant, and interesting. Hence, a variety of approaches, methods and strategies are needed to be employed. Thus, the respondents were asked to provide examples of ways they differentiate instruction in the classrooms. While 99% of the teachers provided their responses, the responses received were not detailed or well-elaborated. During the analysis, the researchers also found a few misconceptions that were held by the teachers towards implementing differentiated instruction.

Firstly, some of the respondents held the notion that advanced students are given more tasks. In the analysis, it was found that two (2) percent of the respondents reported that they provide more tasks for advanced learners while the weaker learners are given fewer tasks as they could not cope.

Secondly, three (3) percent of the respondents held the assumption that less outcome is expected of weaker students and that they only received simple instructions. To clarify, simple instructions meant tasks that are considered easy or beginner-level. The respondents did not further mention whether the simple tasks given are fitted for the students' level but all of the respondents in this category stated in general that they do not expect too much from the students.

Thirdly, it was found that approximately four (4) percent of the respondents held the misconception that during pair or group activities, students are divided according to their ability level (homogenous grouping/pairing).

The misconceptions stated above were found in the item where respondents were asked to provide examples of how they differentiate instruction. Hence, moving on, the findings below will present examples of how the respondents in this study differentiate instruction. It was revealed that there are few main ways that the respondents differentiate instruction in their class.

It was found that 19% of the respondents identified that they provide tiered activities in their ESL classrooms. To specify, most of the respondents differentiate through giving worksheets according to the students' ability level in the sense that they provide more challenging tasks for advanced learners, moderate difficulty for average learners and tasks that are considered appropriate for the weaker learners. In addition to that, one of the respondents also added that while she prepares an appropriate task for the weaker learners, she includes an element that will appeal to the students' interest to keep them motivated.

Besides that, another 15% of respondents differentiate instruction by putting learners into pairs or groups during the learning process also known as flexible grouping. It was discovered that the respondents in this category placed students into pairs or groups. Each pair contains an advanced learner and a weaker learner who will work on an activity together. On the other hand, for group activities, the teachers ensure that there is a mix of abilities in each group (heterogeneous). The excerpts below illustrate the notion:

"Group work is needed especially in large classes. Sometimes, good students can help weaker students by modelling" (R23).

Moving on, approximately 13% of the respondents revealed that they allow learners to demonstrate products in a variety of ways as an example of how they differentiate instruction. It was found that the respondents gave students a similar topic for the assignment but students

can choose their preferred method of completion. For example, one of the respondents mentioned that she allows her students to present their end products in a variety of ways such as a presentation, writeup or storyboard. When it comes down to teaching the four language skills, one of the respondents provided an example of how she allowed her students to choose their presentation method:

"During a speaking skill assessment, I provided my students with a chance to do a debate, a skit or a presentation about an article that they have read" (R75).

Finally, about five (5) percent of the respondents mentioned that they use various visual and auditory aids as a means of differentiating instruction. The respondents primarily identified the use of pictures or graphic organisers in class for weaker learners with the justification that weaker learners need visual aids to visualise the concept. A few of the respondents in this category also mentioned that modern songs were used to capture the students' interest towards the English language. One of the respondents, elaborated those English songs are incorporated in her class to help students realise grammatical forms naturally. In the excerpt below, one of the respondents provided an example of how she used music to encourage students to learn literature:

"I encouraged some of the students who were uninterested in English literature to rap music. The students were required to do a rap on the entire synopsis of the novel. Some came up with excellent and animated cartoon voices" (R39).

4.3 Teachers' Perception on the Implementation of Differentiated Instruction

Section C of the questionnaire examined the teachers' perception on the implementation of differentiated instruction in their ESL classrooms. The items in Section C were based on four (4) constructs which looked into different aspects of differentiated instruction namely, content, process, product and students' needs' (learning profile, interest and readiness).

Table 2 illustrates the mean scores and standard deviation for each of the constructs. Each construct consisted of (5) five items. Content has the highest mean score (m = 4.050, SD = 0.525), which indicates that teachers frequently differentiate through content compared to other constructs. On the other hand, Students' Needs has the lowest mean score (m = 3.706, SD = 0.602) in comparison to other constructs. This

depicts that, teachers less frequently differentiate instruction based on students' learning profile, interests and readiness. To summarize, the overall mean score for all the constructs is 3.853 which shows that teachers sometimes differentiate instruction in their ESL classroom.

At the end of Section C, the respondents were asked to respond yes or no to determine the percentage of teachers who agree and support the implementation of differentiated instruction. Based on the results obtained from the questionnaire, it was revealed that 95.8% of the teachers agreed with the implementation of differentiated instruction while the remaining 4.2% disagreed.

5. DISCUSSION

The main purpose of the study was to investigate teachers' knowledge and understanding of differentiated instruction and their perception on the implementation of differentiated instruction in the ESL classroom based on three constructs namely, the principles of differentiated instruction, the elements of differentiated instruction and students' needs. The results showed that teachers managed to score a combined overall of 87.1% displaying very good knowledge and understanding of differentiated instruction based on ten true/false statements. On the other hand, the qualitative findings showed that the teachers were however less articulate about their knowledge and understanding of differentiated instruction in the open-ended items. During the qualitative analysis, it was also discovered that the teachers held three common misconceptions about implementing differentiated instruction.

One of the misconceptions was that advanced students are given more tasks compared to weaker students while the second misconception was that there is less learning outcome expected of weaker students. Thirdly, the respondents misunderstood that homogenous grouping in class is an instructional strategy of differentiated instruction.

To address the first misconception, Tomlinson (2017) clarified that some teachers mistakenly assume that differentiating instruction means giving some students

Table 2: Illustrates the mean scores and standard deviation for each of the constructs

Construct	Mean	SD
Content	4.050	0.525
Process	3.931	0.602
Product	3.723	0.636
Students' Needs	3.706	0.602
Overall Score	3.853	0.519

Scale: 1= never, 2= seldom, 3= sometimes, 4= frequently, 5= always
Source: *Authors*

more work to do, and others less. She added that such approaches may seem reasonable but are usually deemed ineffective because the learners might become overwhelmed. For instance, if an advanced learner finds it simple to write a two-page book report, writing twice the amount is not the way to go, because it might be viewed as a form of punishment.

Regarding the second misconception, Aftab (2015) has stated that the main principle of differentiated instruction is to help learners achieve the same learning goals, however, what differs is the pathways taken to achieve the goals. To further clarify, Pozas and Schneider (2019) proposed that instructional practices in differentiated instruction ensure that all students achieve at least minimum standards but higher standards can be set for advanced learners.

Thirdly, Tomlinson (2017) has also addressed that a good indicator for effective differentiation is the use of flexible grouping. Flexible grouping contains students of various abilities but most importantly it accommodates students in the sense that one might be stronger in an area and another weaker. When these students are grouped together, they complement each other. Hence, homogenous grouping or pairing isn't widely encouraged as differentiation because by doing so, the teachers are still indirectly streaming the students according to their abilities. Moreover, researchers such as Briggs (2020) and Wilken (2023) confirmed that flexible grouping is particularly effective on weaker learners.

Concerning teachers' perception on the implementation of differentiated instruction in the ESL classroom, the results obtained showed that the teachers sometimes differentiate instruction as the overall mean score for all the constructs was (m = 3.853). In comparison to Shareefa et al., (2019) mixed methods study, the findings revealed that teachers have a positive perception of differentiated instruction. Similarly, the current study revealed that 95.8% of the teachers agreed with the implementation of differentiated instruction. It should be highlighted at this point that teacher generally view differentiated instruction as a positive approach for catering to the students' needs, however, the frequency of implementation is perceived to be at a moderate level. In addition to that, researchers such as Langelaan et al., (2024) highlighted that differentiated instruction should be emphasized as early as during teacher training because "knowledge and skills gained during initial teacher education would be eminent to successful implementation of differentiation, and that it allows differentiated instruction to be presented as the standard teaching approach rather than introducing it later as an additional and complementary approach".

6. CONCLUSIONS

One of the main findings in this study revealed that a large majority of the teachers support the implementation of differentiated instruction, (95.8%) and their perception on the implementation of differentiated instruction is at the moderate level (m = 3.853). This positive feedback indicates that ESL teachers in Malaysia are aware of the importance of inclusiveness and the need to address the variety of differences among their students, mostly in terms of content (m = 4.050). In contrast, student needs' (learning profile, interest and readiness) have the lowest mean score (m = 3.706) which can imply that the teachers need to spend more time understanding their students' interests such as hobbies, passion, likes and dislikes to develop lesson plans that can sustain or pique students' interest. Thus, is it recommended that teachers conduct diagnostic tests to assess the student's learning styles, interests and readiness to design lesson plans that match the student's needs.

The findings of this study also revealed that teachers scored a relatively high score (87.1%) for the true or false items. However, on the flip side, the teachers did not manage to articulate their knowledge and understanding well in their own words in the open-ended response section. This implies that the teachers' knowledge and actual understanding required for the effective implementation of differentiated instruction leaves much to be desired. Furthermore, findings also revealed that nine (9) percent of teachers held misconceptions about differentiated instruction indicating that the aspiration for inclusiveness in the ESL classrooms set out by the MOE of Malaysia has yet to be fully realized.

Hence, it is recommended that the Ministry of Education and school leaders work collaboratively to address this shortcoming. Teachers should be provided with adequate training including pre-service teachers. More specifically, the training should not only be in the form of a traditional seminar but a hands-on workshop/seminar. More importantly, the trainer has to model how differentiated instruction is carried out, if possible, with the integration of technological tools in line with the educational reform in Malaysia.

Last but not least, it must be emphasized that this study is not without its limitations. The study involved only 96 secondary ESL teachers from one district in one state in Malaysia. Moreover, the study examined only teachers' perceptions via a questionnaire and did not triangulate the findings with other research instruments such as interviews and observations. Therefore, the findings cannot be generalized to the total population of ESL secondary teachers in Malaysia. Nonetheless, this study has shed some light on teachers' knowledge and understanding of differentiated instruction and

this is important if the aspiration of inclusiveness postulated in the Malaysian Education Blueprint is to be realized.

To conclude, it is perhaps pertinent that all teachers embrace differentiated instruction as the global paradigm shift towards inclusiveness in education, which on the same thread, was endorsed by one of UNESCO's sustainable development goals which believes that – education is for all.

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Impact of Artificial Intelligence on Science-Religion Dialogue

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ABSTRACT

The science-religion dialogue, an enduring discourse, delves into the realms of science and religion, examining their respective domains, methodologies, and implications. This dialogue, evolving over centuries, adapts alongside advancements in scientific discoveries and religious interpretations. Artificial intelligence (AI) emerges as a pivotal facilitator in this dialogue, leveraging its capacity to analyze extensive datasets, discern commonalities, and foster respectful exchanges. AI serves as a conduit for translating complex scientific concepts into more accessible forms, thereby fostering understanding and bridging diverse perspectives. However, the intersection of AI and the science-religion dialogue also poses various concerns and challenges. Despite its neutral nature, AI's applications and interpretations can inadvertently influence the dialogue, potentially leading to perceptions of harm. This article explores potential ways in which AI could impact the science-religion dialogue, examining both its promises and pitfalls.

Keywords: Artificial Intelligence; Science; Religion; Dialogue; Human Intelligence.

1. INTRODUCTION

In the ever-evolving landscape of technical progress, Artificial Intelligence (AI) stands out as a transformative force that transcends traditional boundaries and permeates various facets of human existence (Chowdhary, 2020). As we delve into the realms of science and religion, the intersection of AI with these two profound domains becomes a focal point for exploration (Henry, 2005). The dynamic interplay between AI, science and religion unveils a complex tapestry of questions, challenges, and opportunities that necessitate thoughtful consideration (Singh, 2023a).

At its core, the science-religion dialogue has long been a nexus of contemplation and debate, often addressing fundamental questions about the nature of existence, consciousness, and the cosmos (Welker, 2014). The advent of AI introduces a new dimension to this dialogue, posing existential and ethical inquiries that prompt us to reevaluate our understanding of humanity, intelligence, and spirituality. As AI technologies continue to advance, their impact on scientific inquiry and religious discourse becomes increasingly palpable, prompting scholars, theologians, and scientists to explore implications that arise at the confluence of these diverse fields (Singh, 2023b).

This intersection challenges us to reexamine traditional dichotomies and confront preconceived notions about the compatibility of science and religion (Watts & Dutton, 2006). With its capacity for learning, adaptation, and autonomous decision-making, AI raises profound questions about the nature of consciousness, the origins of intelligence, and the potential for a machine to possess a form of "mind." How does the development of AI influence our understanding of human experience, spirituality, and the divine? Can AI contribute to our comprehension of the mysteries that science and religion seek to unravel, or does it present new challenges that demand ethical, moral, and theological scrutiny?

This exploration necessitates a multidisciplinary approach that bridges the realms of science, theology, philosophy, and ethics. As we embark on this intellectual journey, we aim to unravel the intricacies of AI's impact on

the Science-Religion Dialogue, examining the synergies, tensions, and transformative potential that arise when cutting-edge technology intersects with age-old questions about the nature of reality and the divine.

2. RESEARCH METHODOLOGY

The research methodology for the study on AI and its impact on the science-religion dialogue is designed to systematically investigate and analyze this intersection's multifaceted aspects. The methodology encompasses a qualitative approach, aiming to comprehensively understand the implications, challenges, and opportunities arising from the convergence of AI and science-religion dialogue.

A thorough review of existing literature on AI and science-religion dialogue has been conducted to establish a foundation for the study (Virk, 2007; Grewal, 2008; Welker, 2014; Harrison, 2015; Nagy, 2018; Singh, 2018; Chahal, 2023; Kanwal, 2023). It includes exploring scholarly articles, books, and relevant publications to identify key themes, theoretical frameworks, and gaps in current knowledge. The literature review guided the development of research questions and hypotheses.

Taking cognizance of the insights gained from the literature review, a conceptual outline was developed to organize the key concepts, variables, and relationships within the context of AI and the Science-Religion Dialogue. This framework served as a theoretical scaffold for analysis. The research concluded with a synthesis of findings, implications, and potential areas for future exploration. Based on the study's insights, recommendations are provided for policymakers, scholars, and practitioners in the fields of AI and science-religion dialogue.

3. DIVERSE ASPECTS OF THE ISSUE

3.1 Artificial Intelligence

Artificial Intelligence (AI) refers to developing computer systems or devices to perform tasks that typically require human intelligence. These tasks include learning, reasoning, problem-solving, perception, language understanding, and environmental interaction. AI aims to create machines or software that mimic cognitive functions, allowing them to adapt and improve their performance over time. It involves developing algorithms and models that enable devices to process information, make decisions, and exhibit behaviour that, in some contexts, may seem intelligent (Liu et al., 2002; Bhargava & Sharma, 2021).

AI can potentially impact science-religion dialogue positively and negatively (Chowdhary, 2020). AI can facilitate science-religion dialogue by analyzing vast amounts of data, identifying common ground, and promoting respectful discussions. It can assist in translating complex scientific concepts for broader understanding and fostering a bridge between differing perspectives. Additionally, Artificial Intelligence (AI) can help identify areas where science and religion intersect, encouraging collaborative exploration and mutual understanding. By leveraging AI-based technologies and devices, science-religion dialogue can be enriched with interactive, personalized, and accessible experiences, fostering a more inclusive and informed discourse. The intersection of AI and the dialogue between science and religion can raise various concerns and challenges. While AI is a neutral tool, its applications and interpretations can influence the dialogue in ways that might be perceived as harmful. This article elaborates on potential ways AI could impact science-religion dialogue.

3.2 Science -Religion Dialogue

Science-religion dialogue refers to the exploration, discussion, and interaction between the realms of science and religion. It involves an attempt to bridge the gap and find common ground between the perspectives, methodologies, and insights offered by scientific inquiry and religious beliefs (Byers, 2005). The dialogue can take various forms, including academic discussions, interfaith conversations, public debates, and collaborative efforts to address ethical and moral issues arising at the intersection of science and religion (Barbour, 2000).

It is well known that there are epistemological differences between science and religion (Chahal, 2023; Kaur, 2010; Singh, 2019a). Science relies on empirical evidence, observation, experimentation, and the scientific method to know and understand the natural world. It is generally concerned with the "how" and "what" questions. In contrast, religion depends on faith, revelation, scripture, and tradition to explore questions about meaning, purpose, and the divine. It often addresses the "why" questions. Thus, there are areas where science and religion address distinct aspects of human experience and existence. Some argue that they are independent domains that can coexist without conflict. Others suggest an overlap and specific questions may be explored from scientific and religious perspectives (Bowler, 2001).

Historically, there have been instances of conflict between scientific discoveries and religious doctrines (e.g., the Galileo affair). However, many scientists and religious thinkers argue that science and religion can complement each other (Gingras, 2019). Both science and religion often contribute to discussions on ethics and morality. While science provides information about the consequences of actions, religion may offer moral frameworks and guidelines (Chahal, 2015; Singh, 2019b). A growing field of interdisciplinary studies, such as science and theology,

explores the intersections between scientific and religious thought. It includes discussions on cosmology, evolution, consciousness, and the nature of reality.

Some individuals seek to integrate their scientific and religious beliefs, finding ways in which insights from one domain can enrich the understanding of the other (Pritchard, 2016). This approach is known as "integration" or "reconciliation." Scholars, theologians, scientists, and philosophers engage in ongoing dialogue through academic conferences, publications, and public discussions. This openness to dialogue encourages exploring shared insights and resolving potential conflicts (Lal, 2020; Singh, 2010a-b). Public awareness of the relationship between science and religion can influence societal attitudes. Debates over issues like the teaching of evolution in schools or the role of science in public policy often reflect differing views on the compatibility of science and religion. Recognizing the diversity within scientific and religious communities, a pluralistic approach to the dialogue acknowledges multiple perspectives within each domain. The science-religion dialogue is multifaceted and complex, involving diverse perspectives (Singh, 2010c). It requires ongoing efforts to foster understanding, respect, and cooperation between these two significant human inquiry and experience aspects (Virk, 2012).

3.3 Ai And Science-Religion Dialogue Enrichment

AI-based technologies are already playing an active role in ensuring the science-religion dialogue becomes more accessible, personalized, and enriched; thereby, this helps foster a more profound understanding and appreciation of the intersections between these two realms. Some of the prevalent applications of AI in this field are as follows:

Intelligent chatbots and virtual assistants such as Amazon Echo (Amazon) and Google Home (Google) are used to converse, get information, seek answers to queries, and facilitate discussions on scientific and religious topics (Kanwal, 2023). Natural Language Processing (NLP) technologies help understand and interpret human language, allowing AI systems to engage in more sophisticated and context-aware conversations during science-religion dialogue. Voice-activated devices equipped with AI provide hands-free access to information, enabling users to explore scientific and religious topics through voice commands and responses. AI-powered language translation apps such as Google Translate and Microsoft Translator assist in overcoming language barriers, allowing participants from diverse linguistic backgrounds to communicate more effectively in science-religion discussions (Singh, 2023c-d).

Augmented Reality (AR) Apps, such as ARCore (Google), ARKit (Apple) and Microsoft HoloLens, overlay information related to religious practices or scientific concepts in real time. It offers the participants a visually enriched experience during discussions. Podcasting platforms that cover topics at the intersection of science and religion use AI algorithms for content recommendations, creating a more tailored listening experience for users interested in these discussions. Virtual Reality (VR) Headsets such as Oculus Rift (Facebook) and HTC Vive powered by AI create immersive environments, allowing users to virtually explore religious sites, historical events, or scientific phenomena, fostering a deeper connection to the topics being discussed. AI-driven debate platforms facilitate structured and respectful discussions, providing a framework for participants to present arguments and counterpoints and engage in constructive debate on science and religion.

AI-powered educational apps like Coursera, edX and Khan Academy offer interactive learning experiences, presenting scientific principles and religious teachings in engaging formats to enhance participants' understanding. Avatars with emotional intelligence capabilities are in vogue to simulate more human-like interactions, understanding and responding to users' emotions during science-religion discussions. Many social media platforms, such as Facebook, Twitter, and Reddit, use AI for content recommendations, helping users discover and participate in discussions related to science and religion. AI tools for social media analyze discussions about science and religion, identifying trends, sentiments, and areas of interest within online communities (Singh, 2023a-d). Devices providing sensory feedback, such as haptic feedback or visual cues, enhance the immersive nature of AI-driven experiences, making science-religion dialogue more engaging.

Many AI-driven platforms adapt content delivery based on individual learning styles, ensuring a personalized and practical learning experience for participants exploring the intersections of science and religion (Singh, 2023a-d). While not explicitly designed for Science-Religion dialogue, platforms like Zoom or Microsoft Teams facilitate online discussions and webinars on these topics. Platforms like Reddit or specialized forums use AI to moderate discussions, recommend threads, or identify relevant content, enhancing the quality of science-religion dialogue within online communities. Such online debate platforms, where participants can engage in structured discussions, utilize AI features for moderation and organization, fostering respectful and informative Science-Religion debates.

AI algorithms are used to recommend relevant videos, books, and articles to users related to their preferences, creating a curated experience that aligns with their interests. AI technologies also make science-religion dialogue more accessible to individuals with

disabilities by providing features like voice-to-text, text-to-speech, and other assistive technologies. Several platforms, such as Google Docs or Microsoft Office 365, incorporate AI features to assist users in the collaborative exploration of scientific and religious ideas, fostering shared understanding (Singh, 2023a-d).

Furthermore, AI assists researchers in identifying commonalities and differences between scientific and religious perspectives, contributing to collaborative research initiatives exploring these domains' intersections. AI-driven simulations present ethical dilemmas at the intersection of science and religion, allowing participants to explore and discuss various perspectives on complex moral issues. Thus, using these AI-based technologies and devices, the Science-Religion dialogue is enriched with interactive, personalized, and accessible experiences, fostering a more inclusive and informed discourse. However, it is essential to note that the landscape of AI devices and platforms is continually evolving, and innovations are emerging (Chowdhary, 2020). More dedicated tools and devices for Science-Religion dialogue will likely appear as technology advances.

3.4 Challenges of AI to Science-Religion Dialogue

Even though AI-powered apps, devices and platforms enrich the landscape of science-religion dialogue (Singh, 2023a-d). However, there are several ways in which AI could pose challenges to the science-religion dialogue. A few of these potential ways are outlined hereafter.

The scientific method and religious faith often rely on different epistemological approaches (Virk, 2007; Grewal, 2008; Singh, 2018). By emphasizing empirical evidence and data-driven reasoning, AI may inadvertently downplay the importance of faith-based beliefs, causing tension between science and religion. AI algorithms, particularly those designed for data analysis and pattern recognition, may lead to oversimplified explanations of complex phenomena. This reductionist approach might conflict with the nuanced and multifaceted perspectives often present in religious discourse, potentially leading to misunderstandings or misrepresentations. Understanding the depth and complexity of scientific and religious concepts is challenging for AI, making it difficult to facilitate nuanced discussions.

The development of AI systems involves making ethical decisions about the data used for training, the algorithms implemented, and the potential biases embedded in these systems. If AI development lacks ethical considerations, it may inadvertently perpetuate biases or contribute to the dehumanization of individuals, undermining the ethical foundations of many religious traditions. Moreover, if the AI is trained on biased datasets, it may perpetuate existing prejudices, hindering

objective and inclusive dialogue. The rise of AI-generated content and the potential for AI to influence decision-making processes could challenge traditional religious authority structures. Questions about the legitimacy of AI systems' decisions in religious interpretation, ethics, or governance may arise.

AI has the potential to impact human identity and dignity, especially in contexts where it is used to enhance or modify human capabilities. Some religious perspectives may view such interventions as challenging fundamental aspects of human nature, leading to ethical and theological debates. AI applications, such as surveillance technologies, might infringe upon religious practices emphasizing privacy and worship freedom. There could be concerns about how AI systems collect and use data related to religious activities, potentially infringing on the autonomy and rights of religious communities. As AI becomes more integrated into various aspects of society, there is a risk of diminishing the importance of human relationships and interpersonal connections (Singh, 2023e-g). Some religious traditions emphasize the value of human relationships and community, and the increasing reliance on AI could be viewed as a threat to these principles.

Religious beliefs and scientific understanding evolve, making it difficult for AI to keep pace with the changing landscape and adapt its approach accordingly. Considering this view, AI needs a deep understanding of scientific and religious domains to mediate discussions effectively. It is important to note that the impact of AI on the science-religion dialogue will depend on how it is developed, deployed, and integrated into society. Ethical considerations, open communication, and interdisciplinary collaboration between scientists, theologians, and ethicists can help navigate these challenges and foster a more constructive and respectful dialogue.

3.5 Overcoming the Challenges

While the role of AI in Science-Religion dialogue enrichment holds great potential, it is crucial to overcome the challenges of AI to such a dialogue. The following approaches might help to tackle these issues.

AI systems must be so designed that they actively seek inclusivity, acknowledging and respecting various perspectives without favouring one another. It can promote a more balanced and open dialogue. Training AI models to recognize and adapt to different cultural communication styles can enhance their ability to navigate diverse conversations in the context of Science-Religion dialogue. AI developers and technical experts must actively work to identify and rectify algorithmic biases within AI systems, employing techniques such as

debiasing algorithms and ongoing evaluation to ensure fairness and impartiality. Standardized ethical guidelines for developing and deploying AI in Science-Religion dialogue must be in place to provide a framework for responsible use and accountability. The ethical development of AI in Science-Religion dialogue must involve transparent algorithms, privacy protections, and ongoing efforts to minimize biases, promoting trust among users.

Collaboration between AI developers, scientists, theologians, and ethicists is the need of the hour to create a more nuanced understanding of both domains, promoting interdisciplinary approaches to enhance dialogue. International collaboration in AI research can lead to developing cross-cultural AI systems that consider diverse religious and cultural contexts (Singh, 2023e-g), ensuring a more globally inclusive approach to science-religion dialogue.

Implementing robust privacy protection measures to address concerns about the confidentiality of user beliefs and discussions can cultivate a secure environment for open dialogue. AI models must be trained on ethically sourced and diverse datasets representing various cultural, religious, and scientific perspectives to mitigate biases. Cultural sensitivity training must be implemented into AI models so that they better understand and respect diverse belief systems. It can lead to the reduction of the risk of unintentional offence or misunderstanding. Suitable algorithms must be developed so AI systems can learn and adapt over time, staying current with evolving scientific and religious understandings to provide accurate and relevant information.

Educational initiatives must be encouraged to increase awareness about AI's capabilities and limitations in Science-Religion dialogue, promoting informed and responsible use. Users of AI technologies and devices must be educated about AI's role in facilitating dialogue, emphasizing that AI is a tool to assist and augment discussions rather than replace human understanding and interpretation.

By implementing these strategies, we can work towards harnessing AI's potential to enhance Science-Religion dialogue, promoting understanding, respect, and collaboration across diverse perspectives.

4. RESULTS

The qualitative investigation has demonstrated a varied understanding of AI, encompassing its role in mimicking human intelligence through machine learning and its impact on various fields. The literature review revealed diverse perspectives on Science-Religion Dialogue, with researchers associating it with the interaction and collaboration between scientific and religious communities. The findings indicated a significant impact of AI on Science-Religion Dialogue, with most researchers acknowledging the potential for technological advancements to influence the discourse between scientific and religious perspectives. Some research studies identified several ways by which AI enriches the science-religion dialogue, including facilitating interdisciplinary discussions, providing new insights, and aiding in the exploration of complex ethical and philosophical questions. However, many other reports raised concerns about the potential negative consequences of AI, such as fostering polarization, challenging traditional beliefs, and creating ethical dilemmas that may strain the relationship between science and religion. Many researchers suggested potential strategies to overcome challenges posed by AI, including promoting ethical guidelines for AI development, fostering open communication between scientific and religious communities, and emphasizing the shared pursuit of understanding and knowledge. In summary, the results highlight the nuanced interplay between AI and Science-Religion Dialogue, recognizing both positive contributions and potential challenges that require thoughtful consideration and collaborative efforts from diverse perspectives.

5. DISCUSSION

The diverse interpretations of AI among researchers underscore the multidimensional nature of this technology. Recognizing these varied perspectives is crucial for fostering effective communication and understanding in the broader context of AI-related discussions. This observation agrees with the results reported by K. Chowdhary (2020). As reported earlier by P. J. Bowler (2001), the present investigation confirms that the range of perspectives on science-religion dialogue emphasizes the complexity of bridging the gap between scientific and religious communities. Understanding diverse views is essential for fostering an inclusive and respectful dialogue. The research findings indicate a notable impact of AI on the science-religion dialogue. It suggests a need for continuous exploration of how technological advancements shape the discourse between science and religion, with implications for both understanding and potential conflict. This is in consonance with the results reported earlier by Singh (2019a, 2023 a-d). Researchers have acknowledged the positive role of AI in enriching science-religion dialogue. AI technology facilitates interdisciplinary discussions, offering new perspectives and exploring complex ethical and philosophical questions, thereby contributing to a more nuanced conversation. This conclusion is supported by the results of N. D. S. Kanwal (2023).

Concerns regarding the negative impacts of AI on science-religion dialogue highlight the importance of ethical considerations. Potential harm, including polarization and ethical dilemmas, emphasizes the need for responsible AI development and thoughtful integration into science and religion discussions. Strategies proposed by S. Bhargava and P.K. Sharma (2021), such as establishing ethical guidelines and promoting open communication, provide valuable insights for overcoming challenges associated with AI in Science-Religion Dialogue. The results of the present investigation emphasize that collaborative efforts between the scientific and religious communities are essential for fostering understanding and addressing potential conflicts. The current investigation also illuminates the intricate dynamics between AI and Science-Religion Dialogue, emphasizing the need for ongoing dialogue, ethical considerations, and collaborative efforts to harness the positive aspects while mitigating potential challenges. This agrees with S. Bhargava and P.K. Sharma's (2021) suggestions. Furthermore, the current investigation contributes to the broader conversation surrounding the intersection of technology, science, and religion.

6. CONCLUSIONS

The dialogue between science and religion involves exploring and discussing the relationship, conflicts, or harmonies between scientific understanding and religious beliefs. The interrelationship between AI and the Science-Religion dialogue emerges in several dimensions. On one hand, AI contributes to scientific exploration, providing tools for data analysis, simulations, and pattern recognition that enhance our understanding of the natural world. This technological progress can influence perspectives within the Science-Religion dialogue by introducing new insights, raising ethical considerations, and challenging traditional beliefs.

Conversely, discussions within the Science-Religion dialogue often extend to the ethical implications of AI. As AI systems become more sophisticated, questions arise about the moral responsibility of creating intelligent machines, the impact on human identity, and the ethical use of AI in areas like healthcare, surveillance, and autonomous decision-making. These considerations intersect with religious perspectives on the nature of humanity, morality, and the ethical use of knowledge.

Thus, the interplay between AI and the Science-Religion dialogue involves the influence of AI on scientific exploration and the ethical implications of AI technologies, sparking discussions about the responsible use of these advancements within the context of religious and moral frameworks. In conclusion, the impact of AI on the Science-Religion dialogue holds great potential. However, it is crucial to approach its development and deployment with ethical considerations, sensitivity to diverse beliefs, and a commitment to fostering genuine understanding and collaboration. As AI advances, its impact on Science-Religion dialogue will depend on the responsible integration of technology, ethical considerations, and a commitment to fostering understanding and respect among individuals with diverse perspectives.

Declaration of Conflicting Interests

The author declares that there were no potential conflicts of interest concerning this article's research, authorship, and publication. This article is the sole work of the author and has not been presented or published elsewhere.

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The Impact of Critical Thinking Disposition on University Students' English Writing Proficiency

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ABSTRACT

Introduction: Writing is a crucial component of the English as a Foreign Language (EFL) curriculum, posing significant challenges to English learners. This study investigates the potential influence of Critical Thinking Disposition (CTD) on English Writing Proficiency (EWP) among university students, aiming to ensure sustainable improvement in EWP. **Methods**: The study was conducted at a Chinese Normal University, involving 356 sophomore English majors. A mixed-method research design was employed, starting with the administration of the Critical Thinking Disposition Inventory-Chinese Version (CTDI-CV) to assess students' CTD levels. The Test for English Major Band 4 (TEM4) writing tasks were used to evaluate EWP. Following this, semi-structured interviews were conducted with eight students—four with the highest CTD scores and four with the lowest—to explore their challenges and suggestions for improving EWP. **Results**: The analysis revealed a positive correlation between CTD and EWP. Students with higher CTD scores demonstrated better writing proficiency in the TEM4 assessments. The qualitative data from the interviews highlighted that students with higher CTD were better at organizing their thoughts and articulating their ideas in writing. Conversely, those with lower CTD scores faced more significant challenges in these areas. **Discussion**: The findings suggest that enhancing CTD can lead to improved EWP among EFL learners. The interviewed students recommended more student-centered teaching activities that focus on developing critical thinking skills in writing lectures. **Conclusion**: This study underscores the importance of integrating CTD into EFL writing instruction. Lecturers are encouraged to adopt teaching strategies that promote critical thinking to facilitate better writing outcomes for students. Further research is needed to explore effective methods for embedding CTD in various aspects of EFL education.

Keywords: Critical Thinking Disposition; Critical Thinking; English Writing Proficiency; Mixed-method Research Design; Challenges and Suggestions.

1. INTRODUCTION

The advent of internet technology has brought many changes to human society, one of which is the prolific use of the English language as it is the language of the commercial world as well as the academic world in the virtual space. This has created a situation where the English language is widely given attention in schools as well as institutions of higher education in many developing countries. To be proficient in the English language requires reading, writing, and listening skills. English Writing Proficiency (EWP) has been given greater attention by academics (Dutta, 2020) as EWP is essential

in strengthening the acquired language knowledge and is a fundamental written communication tool (Huang & Jun, 2020). Poor performance in English writing among China university students has caused increased anxiety among both lecturers and students (Zhang & McEneaney, 2020). Thus, it would be useful and valuable to determine the factors that may influence EWP.

The act of writing stimulates thinking. The writing process itself is a thinking process and with practice, writing can build critical thinking. What is critical thinking? According to the Cambridge Dictionary, critical thinking is the process of thinking carefully about a subject or idea, without allowing feelings or opinions to affect you. Another definition describes critical thinking as disciplined thinking that is clear, rational, open-minded, and informed by evidence (Dictionary.com). Critical thinking entails effective communication and problem-solving abilities (Richard Paul & Linda Elder, 2008). Critical thinking can be measured from two dimensions: Critical Thinking Skills (CTS) and Critical Thinking Disposition (CTD) (Facione, 2000). CTS focuses on cognitive strategies, while CTD emphasises the attitudinal components of thinking to put skills into practice. A study conducted by Elder and Paul (2020) has discovered a strong relationship between critical thinking with English learning achievement. Other studies have indicated that the relationship between disposition and skills is significant (Palavan, 2020). CTD also provides an indispensable situation for the application and development of CTS (Fikriyati et al., 2022) and positively affects language learning achievement (Muhammadiyeva et al., 2020).

Many researchers explored CTS's influence on language learning in the EFL context. However, little research focuses on the impact of CTD on academic achievement, especially on English Writing Proficiency. Therefore, the current study was conducted to fill in the gap and examine the relationship between CTD and EWP, shedding light on improving EWP, particularly in the China EFL context. English writing course is compulsory for English major students in China. Chinese students have generally considered English writing as a challenging skill, thus there is an urgent need to identify students' personal attributes and challenges in learning English writing and investigate factors influencing EWP.

In this study, the researcher examined the influence of CTD on EWP with the following research objectives:

RO1: To investigate the level of CTD among the students.
RO2: To investigate the level of EWP among the students.
RO3: To examine whether there is a significant relationship between CTD and EWP.

RO4: To explore the respondents' challenges and suggestions to improve their EWP.

Correspondingly, the research questions were as follows

RQ1: What is the level of CTD among the students?
RQ2: What is the level of EWP among the students?
RQ3: Is there a significant relationship between CTD and EWP?
RQ4: What are the respondents' challenges and suggestions to improve their EWP?

2. LITERATURE REVIEW

According to the "English Teaching Syllabus for English Majors in Universities" formulated by the China College Foreign Language Teaching Steering Committee in 2016, the teaching goal of English majors is to focus on cultivating students' ability to acquire knowledge and master independent thinking and innovative thinking. This purpose can be achieved if students possess Critical Thinking (CT).

2.1 Concept of Critical Thinking

Different scholars provide different definitions of critical thinking. The American critical thinking movement pioneer, Ennis (1993) defined critical thinking as an individual's reasoning and reflective thinking about what to do and believe. Earlier, Mcpeck (1985) argued that critical thinking comprises skills and tendencies in individual reflective thinking. Paul (2005) further reiterated that critical thinking means actively and skillfully interpret and respond to using, analysing, synthesising, and evaluating information that governs beliefs and behaviours. Although these scholars used different words to define critical thinking, they shared a common core. They defined critical thinking from the perspective of the thinking process and believed that critical thinking is a kind of high-level thinking ability.

2.2 Concept of Critical Thinking Disposition

A critical disposition is a consistent penchant or tendency of thought. The Delphi Report stated that critical thinking comprises cognitive skills and personal attributes. Developing good critical thinking involves nurturing dispositions. Thus, it is implied that without a favourable critical thinking disposition (CTD), critical thinking will not be successful (Hitchcock & David, 2022; Perkins et al., 2012). Conceptually, CTD is defined as a willingness to persist confidently in using critical thinking skills when dealing with problems.

The critical thinking construction model proposed by Facione and Facione (2000) is well-accepted worldwide. It claimed that critical thinking should be

conceptualised as Critical Thinking Skills (CTS) and Critical Thinking Dispositions (CTD). CTS comprises six abilities: Interpretation, Analysis, Evaluation, Inference, Explanation and Self-regulation, which are used in making judgments and decisions. CTD consists of seven dimensions: Truth-seeking, Open-mindedness, Analyticity, Systematicity, Critical Thinking, Confidence, Inquisitiveness, and, Maturity (Facione & Facione, 2000). These dispositions are described in detail as follows:

- Truth-seeking: individuals' persistence to track the evidence or facts, even if the established belief may be challenged.
- Open-mindedness: individuals tend to be open to others' opinions and be ready to adapt based on the fact.
- Analyticity: individuals' tendency to be reasoning and logic
- Systematicity: individuals' tendency to deal with the problem in an orderly, organised, and disciplined manner
- Critical Thinking Confidence: individuals' confidence in their competence to solve problems with reasoning and reflective thinking
- Inquisitiveness: individuals' tendency to consistently be curious about the newly-coming knowledge, even if it seems to be useless at the time being
- Maturity: individuals' aptitude to appreciate the information in a more complex manner rather than a simple justification. The aptitude enables individuals to make decisions without any delay.

2.3 English Writing Proficiency

Writing proficiency affects academic and professional achievements across all subjects (Silvia, 2018). Kareva and Spirovska (2020) stressed that "In terms of skills, producing a coherent, fluent, extended piece of writing is probably the most difficult thing there is to do in language. It is something most native speakers never master" (p. 271). For English as Foreign Language (EFL) and English as Second Language (ESL) learners, writing is an even more challenging task. Therefore, EFL and ESL educators and instructors would continuously seek ways to improve students' English writing proficiency (EWP). Writing has been increasingly employed as a measurement to evaluate applicants' qualifications by both universities and companies (Bass & Moore, 2023).

2.4 Critical Thinking Disposition and English Writing Proficiency

Bass and Moore (2023) proposed that writing is an action to transfer what we think and consider into words and sentences and suggested that the cultivation of writers needs to investigate writers' thinking including critical thinking during their willing process. This was echoed by an earlier study by Reid and Chin (2021) who examined the influence of students' CTD on their writing achievement among seventy college students. The results revealed a positive relationship between them. The relationship between the cultivation of critical thinking ability and the teaching of English majors has become the research focus of foreign language teaching in China. Zhang (2011) confirmed that a correlation exists between CTD and the level of English learning among English major students in her study.

2.5 Argumentative Writing

Argumentative Writing is part of EWP. Compared with other writing genres, argumentative writing has specific characteristics. Argumentation, as a form of communication, is used to settle disagreements on controversial issues (Ferretti & Graham, 2019). According to Seyoum et al. (2022), argumentations move through a logical process to resolve differences of opinion. It also necessitates the elaboration of multiple sides of an issue and the provision of supporting evidence. A series of evidence is used in argumentative writing to support or refute a particular viewpoint on an issue (Ferretti & Graham, 2019). Nejmaoui (2019) even outlined a set of requirements for solid argumentation. These include a clear position and adequate supporting reasons, referring to sufficient (typically multiple), accurate and pertinent reasons to support the position. In addition, there must be counter argumentation, referring to the alternative points and their supporting reasons and conclusion, in which both argument and counterargument should be considered, by either siding with one position or synthesises the views.

Argumentation requires the use of language, both verbal and written. Argumentative writing is considered a more complicated type of writing (Drid, 2014). It depends more on students' cognitive skills than linguistic fluency (Fadhly et al., 2018). Argumentative writing is prevalent across disciplines and essential to students' success in college. According to Nakano and Muniz (2018), argumentative writers adopt other people's perspectives and attempt to reach the goal of persuading and communicating rather than merely presenting the information. Argumentative writing aids in comprehension improvement (Cai, 2021) and the development of scientific thinking (Cronje et al., 2013).

The Ministry of Education in China has developed the Test for English Major (TEM) examination to systematically evaluate students' EWP in higher learning institutions. One component of TEM is argumentative writing. TEM

comes in different Bands. The respondents in this study who are in their sophomore year have been designated to take TEM Band 4 (TEM 4). TEM 4 is compulsory for all English Major students in sophomore year. TEM 4 writing tasks require students to comment critically on the problems mentioned in a few given passages that focus on current issues and which require societal attention. Students' EWP in this study was measured through TEM 4.

3. METHODOLOGY

The research approach of sequential explanatory mixed-method research design was adopted in this study, which means that qualitative data collection is followed by quantitative data collection. For the quantitative part, this study specifically investigated the level of CTD, EWP and their correlation. The qualitative part on the other hand explored the challenges and suggestions from respondents with the highest and lowest CTD achievers. The mixed-method research design was used as it is through both the use of quantitative and qualitative data collection that the reality of the research context can be fully obtained. The quantitative results provided a general picture of the target research, while the qualitative part explained deeper the findings in the quantitative part.

3.1 Population and Samples

The research setting is a Normal University in Hebei province, China. Every year there is a population of approximately 550 English major sophomores in ten classes enrolled in the university. In this study, data were randomly collected from these ten classes. A total of three hundred and fifty-six (356) sophomores were involved in the quantitative data collection and responded to the questionnaires. Eight (8) students were chosen purposefully to participate in focus group interviews. They are those who scored the four highest CTD achievers and the four lowest CTD achievers, respectively.

3.2 Instruments

The California Critical Thinking Disposition Inventory (CCTDI) is a widely accepted instrument to measure Critical Thinking Disposition (CTD) (Facione, 2000). Peng et al. (2004) modified the original English version of CCTDI and translated it into the Critical Thinking Disposition Inventory-Chinese Version (CTDI-CV). This study used the CTDI-CV to examine the CTD level among the respondents. CTDI-CV evaluated respondents' CTD from seven subscales: Truth-seeking, Open-mindedness, Inquisitiveness, Systematicity, Analyticity, Critical Thinking Confidence, and Maturity. CTDI-CV consists of 70 items, 10 for each subscale. The overall CTD score ranges from 70 to 420, while each subscale is ranked between 10-60. Scores

above 350 indicate a strong CTD; scores from 280 to 349, a positive CTD; scores from 210 to 279, an ambivalent CTD; scores below 210, a negative CTD. For each subscale, scores ranging from 50 to 60 suggest a strong disposition; scores from 40 to 49, a positive disposition; scores from 30 to 39, an ambivalent disposition; scores below 30, a negative disposition.

Students' English Writing Proficiency (EWP) was examined with the writing tasks excerpted from the TEM4 (Test for English Major Band Four) Examination. Only two writing tasks were selected due to the limitation of time. Students were gathered in their respective classes at designated times to sit for this test. The mean score of the two essays indicates the students' EWP.

The interviews were conducted using a semi-structured interview protocol consisting of two sections. Section one includes warm-up questions to help create a relaxed atmosphere for the students and explore their background information. In the second section, the questions explored students' challenges and suggestions for improving their EWP. These questions were open-ended, inspiring free responses from the students. The semi-structured interviews were designed based on the conceptual framework of the study and the feasibility of the study (Magaldi & Berler, 2020). Researchers can delve deeper into the participants' responses to these open-ended questions (Lune & Berg, 2017).

3.3 Reliability and Validity

Two experts in the field ascertained the content validity of the research design and instruments, including the questionnaires and semi-structured interviews. Prior to the actual study, a pilot study was carried out using hundred and fifty-two (152) sophomore-year students from the same university. The reliability of CTDI-CV was examined. It obtained an overall Cronbach Alpha coefficient of 0.85, with the subscale coefficients ranging from 0.75 to 0.83. The results showed the high reliability of CTDI-CV. In addition, the inter-rater reliability of essay scoring was also examined with an agreement of 85%.

4. DATA COLLECTION AND ANALYSIS

Data collection was divided into two phases. In phase one, the CTDI-CV was transferred into Wenjuanxing, an application for questionnaire distribution and distributed to the sample students. They had to answer all questions before submitting the questionnaires. One week later, these respondents were gathered again to complete the two TEM 4 argumentative writing tasks under the invigilation of the researcher. Subsequently, two raters (from the university's English Department) scored the two essays according to the official TEM scoring rubrics. The scoring rubric evaluated the essay from three

perspectives: language usage, context organization, and content presentation of their arguments towards the issues presented in the given essays. The scores given by the two raters were documented and compared, and discussions were conducted between the raters after the initial marking until an 85% inter-rater reliability is reached. In Phase 2, two focus groups interview with four highest CTD achievers and four lowest CTD achievers were conducted. Within these two groups, gender representativeness was ensured.

The quantitative data analysis was conducted using SPSS (version 25). Accordingly, descriptive and inferential statistics were carried out. The interview for the qualitative data was audiotaped and transcribed verbatim and then analysed using NVivo (version 12).

4.1 Ethical Consideration

A researcher must always consider ethical issues when conducting research especially when it involves other human beings. It is important to adhere to ethical principles to protect the dignity, rights and welfare of research participants In this study, the researcher clarified the details concerning the study before the questionnaire distribution, declaring voluntary participation among the sample students. The sample students signed the consent letters to confirm their willingness to participate in the study. It was assured that they could withdraw from the study at any time during the research procedure.

Before the interviews, the researcher gained permission from the respondents to audio-record the interviews, verifying the authenticity of the whole procedure. The researcher guaranteed that the data would be confidentially interpreted only for research purposes. Official permission to use Kolb's Learning Style Inventory Version 3.1 was obtained from Korn Ferry, who possesses the copyright of the instrument. The open source enabled the researcher to use CTDI-CV freely for research purposes in China. Moreover, the university and the faculty had authorised the researcher to conduct the study.

5. FINDINGS

The findings of the current study will be presented according to the research objectives and research questions.

5.1 Level of Critical Thinking Disposition (CTD)

Table 1 showed that the overall CTD mean score was 282.35 (SD = 29.977), indicating a positive CTD but just above the cutting-off point (M = 280). In addition, the sample students achieved the highest mean score on the Maturity subscale (M = 42.67,

SD = 9.593), which was followed by Analyticity (M = 41.56, SD = 10.107), Systematicity (M = 41.27, SD = 9.950), Inquisitiveness (M = 40.33, SD = 8.261) and Critical Thinking Confidence (M = 40.17, SD = 8.573). In contrast, the sample students achieved the lowest mean score on the Truth-seeking subscale (M = 36.92, SD = 8.649) and ranked the second lowest on Open-mindedness (M = 39.42, SD = 8.393).

Results from the interviews revealed that the respondents were negatively disposed towards Truth-seeking. Both the highest and lowest CTD achievers shared their indifference about their viewpoint-choosing in essay writing by saying,

> "I may choose the viewpoint that is easier for me in terms of vocabulary and evidence (R3)" and "I prefer the view that I can find enough evidence. (R7)".

They further explained the reason for their decision as follows:

> ".....what I care about is the final score of the essays; in this way, I can achieve my purpose" (R2).

None of the respondents mentioned writing for the "truth".

5.2 Level of English Writing Proficiency (EWP)

Table 2 showed the sample students' EWP levels. EWP was scored based on the official assessment rubric. The two essays are labelled Writing 1 and Writing 2, with the mean score indicating the respondents' EWP. The

Table 1. Critical Thinking Disposition Level (n=356)

Subscale	Min	Max	Mean	SD
TS	13	57	36.92	8.649
OM	12	57	39.42	8.393
ANA	12	59	41.56	10.107
SYS	13	59	41.27	9.950
CTC	12	57	40.17	8.573
INQ	11	58	40.33	8.261
MAT	13	59	42.67	9.593
Overall CTD	188	355	282.35	29.977

Note: *TS: Truth-seeking, OM: Open-mindedness, ANA: Analyticity, SYS: Systematicity, CTC: Critical Thinking Confidence, INQ: Inquisitiveness MAT: Maturity, CTD: overall Critical Thinking Disposition*

Table 2. Respondents' English Writing Proficiency Level (n=356)

Item	Mean	SD
Writing1	10.58	2.209
Writing2	12.79	2.831
EWP	11.685	2.327

students' mean scores for Writing 1 and Writing 2 were 10.58 (*SD* = 2.209) and 12.79 (*SD* = 2.831), respectively. The mean score of EWP among the sample students is 11.685 (*SD* = 2.327), indicating a low EWP level.

5.3 Correlation between CTD and EWP

There was a significant and positive correlation between EWP and overall CTD (*r* = 0.327, *p* < 0.01). The results showed that students with higher CTD achieved higher scores in EWP, however, the correlation is not very high.

5.4 Challenges in Writing Argumentative Writing

Qualitative data were collected through the semi-structured in-depth interview. Students were grouped according to their CTD levels. The students' CTD scores were divided into four levels: Level 1 (scoring 209 and below), Level 2 (scoring from 210 to 279), Level 3 (scoring from 280 to 349), and Level 4 (scoring 350 and above). Group One was made up of the students ranking the highest CTD scores, while those in Group Two scored the lowest CTD scores. All eight respondents were labelled R1 to R8 in this study. The findings from the interviews illustrated three main challenges the respondents face in English writing: limited vocabulary and grammar knowledge, insufficient thinking skills and personal factors.

5.4.1 Challenge I: Limited Vocabulary and Grammar Knowledge

Limited vocabulary and grammar knowledge was the respondents' challenge in their writing. It restricted the students to express their thoughts fully in English. Some samples of quotes were as follows:

…many times, I am confined to limited words when I have an idea to write about. I have an idea but cannot write it down because I do not know the corresponding English word or have to substitute it for the word I know. So, there may be a little deviation between what I want to say and what it expresses. (R2)

I have a lot of ideas in my mind, but I cannot write them out. It is limited to my competence. I have ideas to write, but it may be difficult for me to express them accurately. (R5)

I want to express a particular meaning but cannot express it in English; I do not know how to say (write) it. (R4)

Also, I do not know how to express the meaning more accurately in English. (R7)

5.4.2 Challenge II: Insufficient Thinking Skills

Bauman and May (2019) indicated that thinking is skilled work. It is not endowed naturally but obtained

through learning and practising. The respondents in this study wrote two argumentative essays excerpted from TEM4. They were required to think about the contradictory opinions and comment with supporting evidence using thinking skills like analysing, organising and compiling. During this exercise, the respondents shared their worries related to thinking skills. They voiced out difficulties in finding supporting evidence, shallow thinking, weak logicality, analyticity and confining to Chinese thinking. Examples of quotes were as follows:

Sometimes I may confine myself to my ideas when reviewing the topic. It is difficult for me to develop more convincing evidence during the exam. (R2)

I do not have more evidence to support my viewpoint. I come up with almost the same arguments when I see the topic. I have nothing to say when I write, and often I cannot meet the lowest word limit. (R8)

I am always discussing it at the same level. For example, if I want to say that the weather is very good, I can say it repeatedly. I cannot discuss it from different aspects and explore more arguments. I feel that the content is not substantial enough. (R7)

Also, I do not know what to write because I have nothing to say. The same meaning was told back and forth in a composition, which is particularly boring. (R6)

The British and the Chinese express ideas in different ways. We hold different attitudes towards a particular issue. I tend to follow Chinese Thinking and fail to broaden my mind. (R5)

5.4.3 Challenge III: Personal Factors

Respondents also mentioned the challenges they faced concerning personal factors like forgetfulness, lack of concentration, and lack of initiative, as shown in the sample quotes below:

I do not like memorising something; I always forget what I learned in class or myself. So, I cannot accumulate as many words and phrases as possible. I also want to do it, but rarely do I make it (R2)

I am a person who is easily distracted. Moreover, we have a big class, and it is easy to get distracted or sleepy. When I cannot keep up with the class, I do not want to continue to listen to the class. (R5)

Because for me, initiative in learning is relatively weak, and I do not have much self-consciousness about learning." (R3)

I do not particularly like to write English composition, no matter whether English composition or Chinese composition; I do not want to write (R8)

Sometimes it's boring to learn grammar in class. If I cannot keep up with it anytime, I may feel tired and sleepy and quit listening. (R3)

5.5 Suggestions to Improve EWP

There are several differences among the interviewees between those with the highest and the lowest CTD levels. Three themes emerged from the interview data: teaching strategies, teaching content, and writing feedback.

Theme 1: Teaching strategies
Respondents advocated more student-centred activities where they can have intellectual discussions such as brainstorming and group discussion. with their classmates and teachers.

Theme 2: Teaching content
Respondents suggested more model essays and templates for practice purposes so that they can fulfil their essays more easily. This suggestion was given by both the highest and lowest CTD achievers.

Theme 3: Writing feedback
There is a difference in terms of writing feedback between the higher achievers and the lower achievers as shown in Figures 1 and 2. The former wants more feedback but not the latter. There needs to have further study to ascertain the reasons for such a phenomenon.

6. DISCUSSION

The research showed that the overall mean score of CTD is 282.35. This value is barely above the cutting-off point of 280, indicating a positive but low CTD among respondents. This result aligns with the findings of the research conducted by Wen Qiufang (2014). The marginally positive CTD score was also verified among English major learners in southern China (Li, 2023). There are many possible reasons for the low CTD score. One of the arguments put forth is the culture of Chinese society which focuses more on conforming rather than argumentative. Jiang (2018) felt that Confucianism might have played a vital role because being rooted in China, Confucianism emphasises unity rather than opposition, synthesis rather than logic. Chinese traditional culture values obedience from the lower ranks towards their superiors. Therefore, it seems to be rude to argue with the authorities for fear of challenging them. The Chinese traditional culture might hinder thinking independently and critically, indicating a lower CTD level. Underlying the background of this particular Chinese culture, students are prone to follow what the teacher says and what is written in the books. As R5 mentioned in the interview,

"*By reciting template, I think I can achieve high marks in the composition*" (and this is because) "*the template in the book is good for me to copy, they come from the experts and teachers*".

They never doubted the actual value of the templates, believing templates were worthwhile to be followed—the rampant use of templates probably curbs critical thinking development among students. Therefore, respondents suggested that lecturers introduce more templates in the writing lectures.
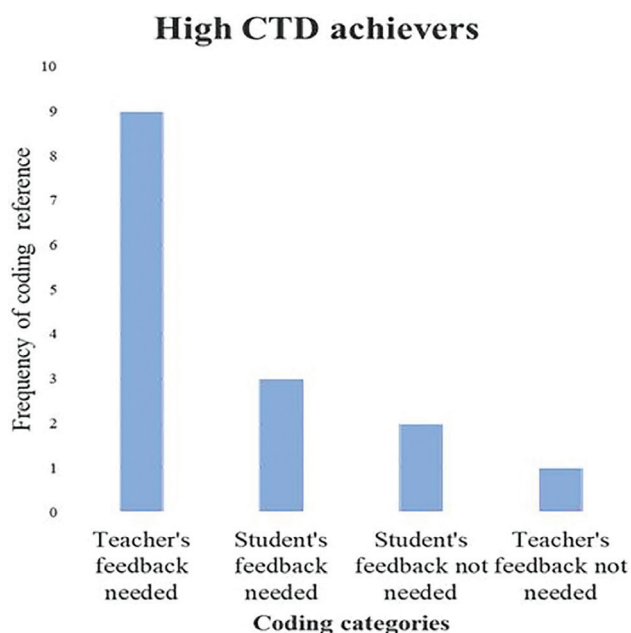
Figure 1. High CTD Achievers' Suggestions
Source: *Authors.*
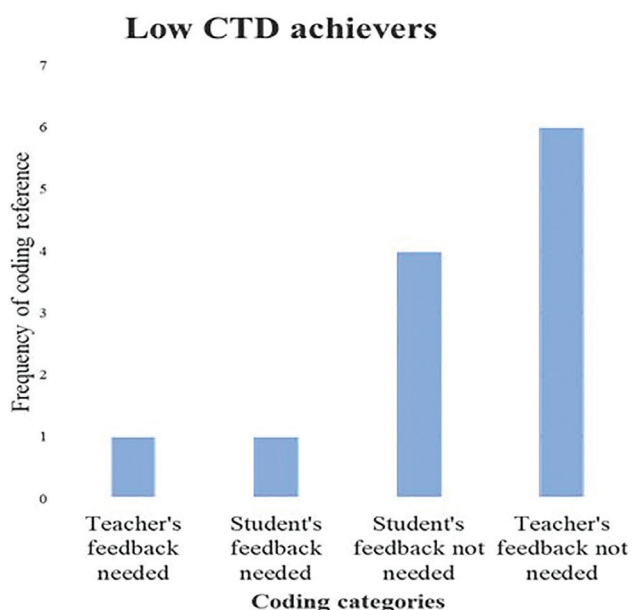
Figure 2. Low CTD Achievers' Suggestions
Source: *Authors.*

A significant and positive correlation between overall CTD and EWP was ascertained in this study. This result aligns with the findings of Facione and Facione (2000), who found a significant and positive correlation between college students' CTD and academic achievement in America. In their study, Peng and Zhang (2014) who investigated CTD among English major students in China found that in general, respondents with higher CTD scores achieved higher scores in EWP.

In terms of subscales of CTD, McClenny (2010) found a significant correlation between CTF and Maturity and Analyticity. The same results were also discovered in this study where the correlation is as follows: EWP and the subscales of Maturity, $r = 0.331$; EWP and Analyticity, $r = 0.260$. Similarly, Chen (2022) found that the highest correlation was between Maturity and EWP among 180 university students. From his viewpoint, the depth and breadth of thinking originating from Maturity affected learners' writing proficiency. Maturity refers to a tendency to see problems critically rather than in black and white, while Analyticity refers to an inclination to be aware of what would happen next, with the habit of analysing the situation's merits and demerits. These qualities are instrumental to argumentative writing.

The correlation between CTD and EWP infers that students' CTD determines their EWP. Both levels of CTD and EWP among the respondents were found to be relatively low. The in-depth interviews revealed respondents' challenges in writing, and they admitted their lack of critical thinking skills. The lack of critical thinking skills was compounded by their deficiency in vocabulary and grammar knowledge. Therefore, students could not express their thoughts well in English. Also, respondents revealed they were less motivated in doing the writing tasks than obtaining higher scores. Hence, they are inclined to resort to memorising 'templates'. Respondents advocated more student-centred strategies in writing courses indicating the yearning to improve their critical thinking skills.

7. CONCLUSION

The level of CTD and EWP among the English major sophomore was comparatively low at China Normal University. There was a weak though positive correlation between CTD and EWP. The respondents faced challenges like limited vocabulary and grammar knowledge, insufficient thinking skills and personal factors in writing. The respondents advocated more student-centred teaching strategies, templates, and feedback to assist them in improving their writing proficiency. The higher and lower CTD achievers hold different views towards writing feedback whereas the lower CTD achievers shunned feedback from their teachers and peers.

7.1 Implication and Recommendation

This study presented that CTD was positively correlated to EWP, meaning that students with higher CTD have a higher possibility of outperforming those with lower CTD regarding EWP. Hence, more attention should be put on CTD cultivation during English writing lectures. The findings of this study could contribute to better instruction in teaching writing specifically argumentative writing at the university level. Skills alone cannot guarantee the employment of critical thinking in a particular circumstance (Hitchcock, 2018). The willingness to use the skills (CTD) helps improve performance in English argumentative writing.

In teaching English writing, lecturers should emphasise the greater importance of cultivating students' CTD in their English writing lectures. To achieve this purpose, lecturers should change the current teacher-centred pedagogy to student-centred pedagogy, prioritising critical thinking cultivation. Brainstorming and group discussion should be advocated to stimulate a vibrant and engaging atmosphere. Learners should actively participate in the brainstorming activities, figuring out the pros and cons of discussing the topic. In this process, learners are encouraged to share their views and think from a broader view, which may cultivate their aptitude to think independently and critically. Group discussion is also a highly advocated activity in writing class, especially in the feedback procedure. Lecturers can divide students into groups of three to four individuals to discuss the composition in detail. The group members are encouraged to interrogate teachers' and peers' views to find solutions to the problem and accept others' opinions. The interaction among students may enable them to gain a multi-dimensional view of the problems.

In addition, some suggestions are offered for future research. First, the quantitative data were collected among a limited sample of 356 sophomores in the same university. It is suggested to investigate a more significant number of populations to enable a more valid generalisation. Since this study focused on English major sophomores, a long-term investigation could also be conducted among English majors, examining their evolution in CTD. Based on the correlation between CTD and EWP verified in this study, more researchers may relate the CTD to the learning outcomes in various academic fields, investigating their relationships in depth.

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Influence of Post-Method Pedagogy on Chinese EFL Teachers' Perception of Teaching Approach

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ABSTRACT

Objective: The study aims to explore the influence of Post-Method Pedagogy (PMP) on Chinese English as a Foreign Language (CEFL) teachers' perceptions of their teaching approaches. ***Methods***: A case study was conducted involving four CEFL teachers at a university. Data were collected through interviews, reflective journals, surveys, and observation checklists. ***Results***: Exposure to PMP positively impacted the teachers' teaching approaches, shifting their roles from primary authorities to facilitators of learning. The emphasis was on context-sensitivity, reflective teaching, and building connections with students. Influencing factors included teachers' educational background, institutional demands, and preconceived notions of teacher-student relationships. Teachers developed more open, inclusive, and autonomous attitudes and beliefs towards PMP, becoming more sensitive to learners' needs and showing improvements in teaching autonomy. ***Conclusion***: Integrating PMP into early teacher training programs can positively prepare future EFL teachers for globalized teaching contexts. Challenges in implementing PMP were also identified, suggesting the need for ongoing support and development in this pedagogical approach.

1. INTRODUCTION

English language teaching in China is of critical importance for many students' academic success, career advancement, and participation in a multilingual society. Various educational reforms have been initiated by the Chinese education system such as the practice of Outcomes-Based Education (OBE), including the establishment of a national criteria for teaching quality in English language programs in 2016. This effort emphasizes the need to adapt and redefine English Language Teaching (ELT) in higher education to foster inclusivity and to cater to students' diverse learning needs both within and outside the classrooms (Du &

Wang, 2019). However, both OBE and the teaching quality criteria treat teachers as implementers of prescribed teaching methods and overlook teachers' potential to develop teaching strategies based on their own teaching and learning philosophies. Consequently, students continue to learn EFL within a limited scope, hindering their true potential for success in higher education. The aim of this study is to apply Post-Method Pedagogy (PMP) in the classrooms of four Chinese EFL (CEFL) teachers, empowering them to contextualize their teaching practices, liberate them from the constraints of prescribed methods, and meet the diverse learning needs of their students.

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1.1 Basic Concepts

1.1.1 Method

The history of English language teaching (ELT) has been characterized by the persistent pursuit of the best teaching method. The concept of method, both with a lowercase "m" and an uppercase "M," has played a crucial role in this pursuit. As defined by Bell (2003), a **method** is "a grab bag of classroom practices," while **Method** is "a fixed set of classroom practices that are prescriptive, and therefore do not allow variation" (p. 326). Brown (2000) added that a "method" oversimplifies language teachers' classroom practices, neglecting the influence of various teaching contexts. Similarly, Richards and Rodgers (2014) assert that methods are an umbrella term that comprises approach, design, and procedure. They further explain that a method is theoretically linked to the approach, organizationally determined by the design, and practically realized in the procedure. In summary, the teaching method is no longer a rigid framework, and flexible teaching has become a popular approach to both teaching and curriculum design that acknowledges the changing needs of learners in a rapidly changing world (Kariippanon *et al.*, 2019; Pane, 2018). Flexible teachers are willing to explore different instructional materials and strategies to meet their students' needs and are not tied to traditional methods of instruction that educational institutions have developed (Joan, 2013). Flexibility allows educators to respond to different learner abilities, needs, and interests and is beneficial to tailor the approach to each individual student. Flexible learning is a method of learning whereby students are given freedom in how, what, when, and where they learn, and it addresses how physical space is used, how students are grouped during learning, and how time is used throughout teaching (Detyna *et al.*, 2023).

A significant development in ELT is the realization that the decades-long trend of pursuing the best teaching method needed reform, and flexibility is key to effective teaching and learning allowing for customization and adaptation to meet the needs of learners. Acknowledging the complexity of teaching contexts and embracing a context-sensitive approach is essential for promoting effective language instruction in diverse educational settings (Han, 2022; Littlewood, 2013). By moving away from a one-size-fits-all approach, language educators can develop a more nuanced understanding of teaching practices and make informed decisions that align with the specific needs and goals of their learners.

1.1.2 Post-Method Pedagogy (PMP)

Post-method pedagogy or PMP was first introduced by Kumaravadivelu (2003) in his influential paper entitled "Toward a Post-method Pedagogy," and it emerged as a pivotal contribution to the field of language pedagogy.

This concept was a result of a collective dissatisfaction and critique of traditional teaching methods among educators that persisted until the turn of the twenty-first century. The earlier methods had restrictions on instructional practices and hindered teachers' professional growth (Abbas & Al-Bakri, 2020; Kamali, 2021; Kandel, 2019). A more recent trend in methodological practice occurred in the form of the exploration of alternative approaches in designing effective teaching strategies (Aburayash, 2021; Affendi *et al.*, 2020; Goedhart *et al.*, 2019; Santikarn & Wichadee, 2018) and a call to overcome the constraints of the transmission model of teacher education by emphasizing the search for alternative methods to foster the development of proficient teaching professionals (Laili et al., 2022; Marina et al., 2019).

In response to the two research orientations, Kumaravadivelu (2003) developed the post-method framework which comprised an innovative teaching strategy matrix and a modular teacher training model. The pedagogy in PMP includes not only issues pertaining to classroom strategies, instructional materials, curricular objectives, and evaluation measures, but also a wide range of historical, political, and sociocultural experiences that directly or indirectly influence L2 education (see in Figure 1). Kumaravadivelu (2006) believes that a teacher's role is significant in constructing pedagogic theories based on past and present learned theories and experiences, practices, and activities in real contexts. The post-method pedagogy was conceptualized in the form of a three-dimensional pedagogy of particularity, practicality, and possibility.

PMP represents a significant shift in education by encouraging teachers to leverage their personal knowledge and contextualized experience in their teaching practices. However, PMP has faced criticism for its perceived one-size-fits-all nature, being considered an illusion or a hypothetical reality, because the effective realization of PMP requires highly qualified teachers mastering sufficient pedagogical knowledge
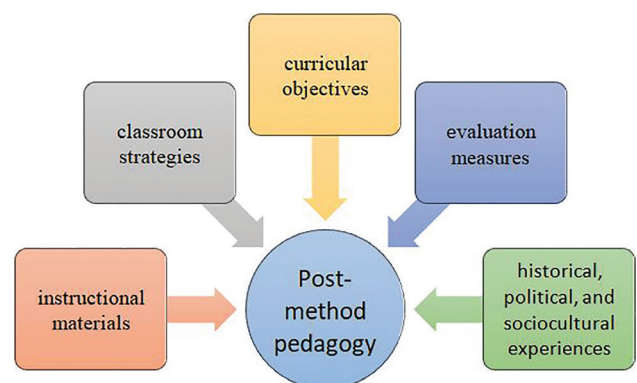
Figure 1. Post-Method Pedagogy Constituents
Source: *Kumaravadivelu, 2006*

and sociocultural backgrounds (Akbari, 2008; Ziafar & Namaziandost, 2019). Therefore, substantial renovation of teacher education infrastructure and sufficient practical guidance for teachers comes as a predominant necessity (Sun, 2021).

Empirical research elsewhere has provided evidence of the disparity between the theoretical acceptance and practical implementation of PMP. In his study, Mahdi's (2022) empirical research displayed a process of tweaking the micro-strategies of PMP to adapt to the Iraqi EFL context. Islam's (2020) study conducted in Bangladeshi tertiary education identified various factors, such as syllabi, course books, and the evaluation system, that hindered teachers and students from exercising autonomy. While teachers were able to match teaching materials to students' needs to achieve particularity, they faced limitations in addressing practicality and possibility. Kandel's (2019) research among prospective EFL teachers in Nepal revealed that although pre-service teachers had some awareness of PMP, teacher education was not updated to enable its implementation. Teachers were not viewed as knowledge creators, rather as passive technicians. Golzar's (2020) systematic review highlighted a significant gap between theoretical recognition and practical implementation of PMP. It can be inferred from the above that while practitioners acknowledged PMP, they often succumbed to contextual barriers or implemented it in an insufficient way (Sun, 2021).

1.1.3 Teacher Role in Post-method Pedagogy

According to Kumaravadivelu (2006), Post-method Pedagogy (PMP) or pedagogy in progress emphasizes teaching context analysis and understanding learners in actual classrooms before deciding on a teaching method. This analysis process is an ongoing effort. Feedback from the classroom and teacher reflection are important for this pre-analysis stage. In a deconstructionist approach teachers address teaching issues and conduct their teaching practice by breaking past familiar practices and interpreting multiple meanings from the actual teaching context. Past studies demonstrate that the essential prerequisite for student engagement, classroom participation and responsiveness, self-efficacy, motivation, and aspirations, positive emotional adjustment, prosocial behavior, and ultimately long-term academic success lies in the teacher who exhibits these capabilities (Dörnyei, 2014; Naeini & Shakouri, 2016; Sun, 2021). Therefore, language teachers must adapt and prepare themselves for the context they are to face. Strategies that work with one student or class may not be effective with others, and even the same student or class may require different approaches on different occasions (Dörnyei, 2014; Sun, 2021).

In practicing PMP, language teachers are required to identify specific micro-strategies guided by macro-strategies which are theory-neutral and method-neutral, respectively, but the micro-strategies proposed by the PMP still need tailoring before being used in certain contexts (Mahdi *et al.*, 2022). Figure 2 illustrates the parameters of particularity, practicality, and possibility which serve as the axis connecting and anchoring the center of the pedagogic wheel (Kumaravadivelu, 2003). The macro-strategies act as spokes that connect the pedagogic wheel to its center. The outer rim symbolizes language learning and language teaching. There are also concealed or unknown wheels within the
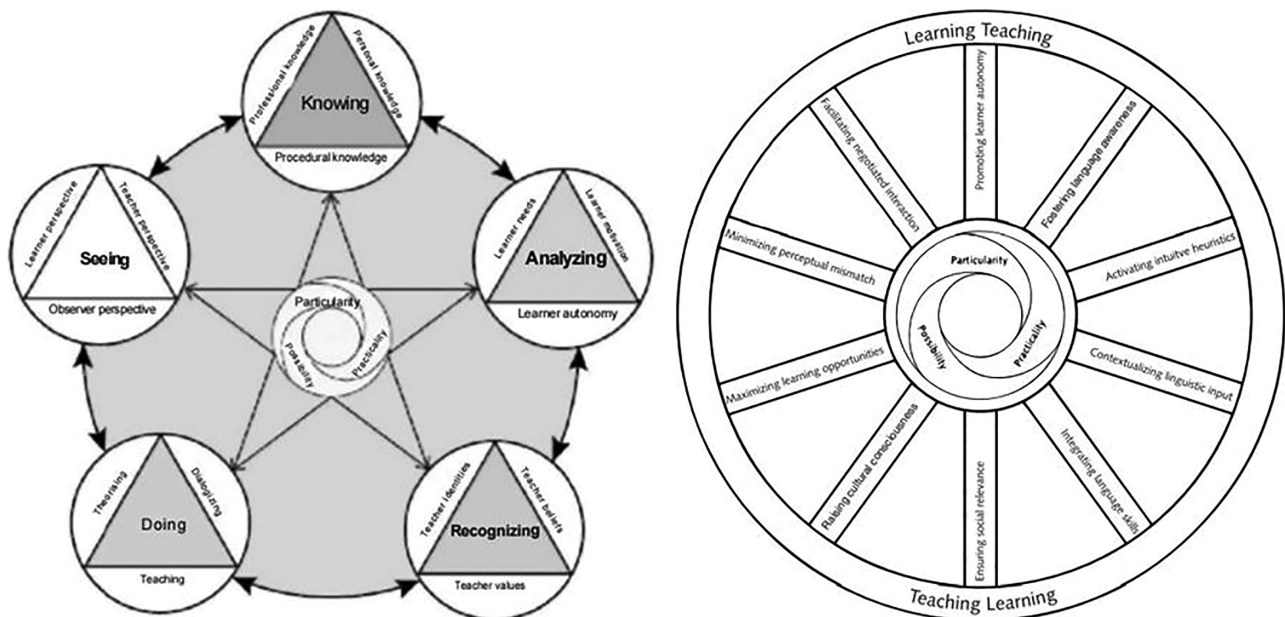
Figure 2. The PMP Framework
Source: *Kumaravadivelu, 2003*

wheels—individual, institutional, social, and cultural factors—that exert influence on language learning, language teaching, and language use within a given communicative context.

1.1.4 Teaching Approach

In the past, a teaching approach was defined as a set of assumptions that addressed the nature of language, learning, and teaching. A method referred to a comprehensive plan for the systematic presentation of language, based on a specific approach. In the traditional three-tier framework comprising approach, method, and technique, approach is at the highest level, with method representing the holistic plan for the systematic presentation of language within a specific approach. However, Richards and Rodgers (2014) restructured the three levels of pedagogy, replacing "approach-method-technique" with "approach-design-procedure" relationship (see in Figure 3). Furthermore, they introduced a separate category for method, which became a hypernym beyond the "approach-design-procedure" relationship. This new category serves as an umbrella term encompassing the specification and interrelation of theory and practice.

Similarly, Kumaravadivelu (2006) simplified the description of post-method framework and created a two-part distinction: principles and procedures. Principles indicate a set of insights derived from theoretical and applied linguistics, cognitive psychology, information sciences, and other related disciplines that provide theoretical foundations. Principles thus include not only the theoretical assumptions governing language learning and teaching, but also those governing syllabus design, materials production, and evaluation measures. Procedures are the set of teaching strategies adopted or adapted by the teacher to accomplish the goals of language learning and teaching in the classroom. Thus, the basic elements of approach are covered by the definition of principles. Procedures comprise classroom events, activities, or techniques. In this study, Kumaravadivelu's (2003) definition of principles is adopted as the theoretical base to understand the teacher's perception of teaching approach.

The teaching approach as defined by Kumaravadivel's (2003) principles is the reflection of teachers' dynamic and changing process of personal and professional development (Stenberg *et al.*, 2014). In PMP theory, teachers' teaching approach is affected by and presented

in the forms of classroom strategies, instructional materials, curricular objectives, evaluation measures, and the historical, political, and sociocultural experiences.

1.2 Statement of the Problem

PMP, marking a shift from a "methods-directed" approach to a post-method model in language teaching, encourages teachers to take initiative and become explorers and managers of their own classrooms. To achieve this, teachers must redesign their classes, considering not only classroom strategies, instructional materials, curricular objectives, and evaluation measures, but also the broader historical, political, and sociocultural factors that directly or indirectly influence second language (L2) education (Gokmen, 2023). While there is a considerable body of literature on the concept of PMP, many articles focus on theoretical and philosophical discussions, offering interpretations of how PMP can be applied in teaching. Similarly, within the context of China, there is a growing number of studies exploring the emotions, experiences, and understandings of teachers in relation to PMP. Many teachers have recognized the importance of negotiating knowledge between themselves and their students, as well as with other teacher educators. However, research which specifically focuses on the influence of post-method pedagogy in the Chinese context is scarce. To date, no studies have been conducted in China to investigate the perceptions and experience of teachers implementing PMP in real classrooms.

Despite this need, there have been very limited research efforts focused on the effects of post-method pedagogy on EFL teachers' profession. Therefore, the purpose of this study is to investigate the influence of PMP in reconstructing the existing practices of Chinese EFL teachers' instructional practice, which helps to improve the EFL teachers' professional development and flexible teaching. The study was designed and conducted among tertiary level EFL teachers to examine and explore their perceptions and experience of the post-method approach to teaching English in China. Consequently, this study seeks to address the specific issue of the undefined role of the post-method approach in improving the teaching approach and practice of four CEFL teachers at a public university located in Shanxi Province, northern China.

1.3 Research Objectives

The EFL context in China, as in many other EFL teaching and learning environments, is distinct culturally, socially, and politically. Therefore, research must consider the practical constraints and challenges specific to this context. In China, all EFL syllabi and materials are prescribed by the Ministry of Education, leaving teachers
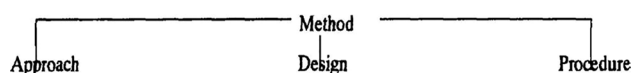
Figure 3. New three-tier system of Method
Source: *Richards & Rodgers, 2014*

with little choice, but to work with these materials. Some textbooks have not been updated to reflect recent developments, and students' individual needs and proficiency are often overlooked. Furthermore, the professional development of Chinese non-native-speaking EFL teachers, particularly those in underdeveloped areas, faces significant challenges. Few studies have examined how these teachers, who often have limited training and growth opportunities, apply context-sensitive aspects of PMP in their real teaching contexts. Addressing this gap would contribute to the following objectives:

1. To understand the effectiveness of PMP in helping Chinese non-native speaking EFL teachers to enhance their teaching approaches.
2. To investigate the Chinese EFL teachers' perceptions of their instructional practices of PMP in class.
3. To explore the possible challenges and difficulties in practicing PMP.

1.4 Research Questions
1. How does the process of practicing PMP help to improve the teachers' teaching approaches?
2. What are the teachers' perceptions of the practice of PMP in their EFL classrooms?
3. What are the challenges faced by the teachers in using PMP?

1.5 Research Significance

Building upon previous research, this study aims to examine how PMP can serve as an alternative to traditional teaching methods in language instruction at the tertiary level in China. This research is important for both theoretical and practical aspects of language teaching. The study's theoretical contribution lies in determining the overall role of PMP in exploring pedagogical theories related to language education. On a practical level, the findings will provide teachers with a comprehensive understanding of their classroom dynamics. This understanding will enable them to systematically observe their teaching, assess the outcomes, identify challenges, find solutions, and determine which techniques and strategies are effective and which are not.

2. METHODOLOGY

This study employed a case study design and incorporated a phenomenological approach, which is a qualitative research method that explores the subjective experiences of individuals. The choice of a case study research design was driven by the research questions, which focus on a contemporary phenomenon and require an extensive and in-depth understanding of the process

(Yin, 2015). This aims to capture variations and differences in how individuals understand and experience various aspects of their world.

The researcher utilized multiple tools, including interviews, reflective journals, observation checklists, survey questionnaires, and focus group interviews in the collection of data. All interview transcripts were transcribed verbatim before they were analyzed using N-vivo software that employed a thematic analysis approach (Yin, 2015). All written data were then uploaded into N-vivo for comprehensive analysis. Thematic analysis via the constant comparative method was employed to generate themes and categories (Braun & Clarke, 2006). An audit trail was maintained, and peer review was conducted after the data analysis to ensure the validity and trustworthiness of the study.

Ethical considerations were considered, and permissions were obtained from all participants for the interviews. Informed consent was obtained prior to conducting the interviews, and the objectives and nature of the study were explained to the participants. Due to space limitations, this paper presents only the results from one participant, Emmy, to provide an understanding of the case.

2.1 Participants

A purposive sampling method was employed for the case study, and participants were selected based on the following criteria: (a) a genuine interest and motivation to improve their teaching approach, (b) no prior exposure to PMP, (c) a minimum of 5 years of experience working in the same institution, and (d) willingness to participate in the study. This sampling method was chosen to ensure that rich and in-depth narratives could be obtained regarding how the teaching approach is influenced by the implementation of PMP in the classroom within a specific educational context, particularly when the teachers have had no prior training in PMP. The details of the participants are shown in Table 1.

2.2 Procedures

Phase 1: Interview - Prior to implementing the PMP practice, teachers were interviewed to assess their initial teaching beliefs and models. It should be noted that the concept of PMP was introduced by the researcher during these interviews.

Phase 2: Teacher Training - The researcher, acting as a teacher trainer, conducted an 8-hour training session spread over two weeks. The training covered four main topics: Concept of method, Post-method Condition, Post-method pedagogy framework, and Practicing PMP. Additionally, the teachers were provided with six academic papers on PMP for further reading and discussion.

Table 1: Demographic Information of Interview Participants.

Participants (Pseudonym*)	Gender	Age	Years of study at university	Highest Qualification	Academic Position	Courses Taught
Emmy	F	40	8 years	Master in Linguistics	Lecturer	Comprehensive English
Jessie	F	47	15 years	Master in American Arts	Associate Professor	American Literature
Frank	M	43	10 years	Master in TEFL	Associate Professor	American Culture
Randy	F	42	10 years	PhD of Education	Lecturer	Translation

Source: *Author*

Table 2: Summary of Findings

Factors describing the changes of the teaching approach	Themes	Illustrative Quotes
Teacher identity	• student-centered • learning-centered • autonomy range • guide and explorer	• I believe the class should be student-centered, but I used to teach on my own assumption and understanding. • I need to consider some specific ways to improve the learning process of the students rather than delivering what I need to teach. • I think the major autonomy for a literature teacher is to read more, not limited by the textbook but in all areas. • post-method pedagogy proposes to train teachers and learners to be explorers. To realize the goal, students should be allowed more time to think and speak
Context sensitivity	• students' needs • emotion • social development • multiple resources	• I hope we can become friends and equally share our ideas on a work. • In class when we communicate smoothly, I feel I am free and have a lot of choices. When we can't communicate smoothly, I feel depressed that I can only transfer the information rather than elicit the understanding.
Teaching strategies	• clarify teaching aims • meaningful communication • logic in teaching • more learning opportunities	• Enlightened by maximizing learning opportunities, I think I should do something first to meet their learning needs. • In my class, I practiced this by adjusting the order of questions. I led them to enjoy the process of exploring, from description to comment, from objective to subjective.
Teaching reflection	• reflection on more aspects • regular reflection • make decisions after reflection	• When reviewing my teaching, I usually made the decision by myself. I think I wanted to make a student-centered classroom, but actually it's still a content-based or teacher-centered one. • Feedback from students: Although I didn't ask students' feedback directly, I can feel their relax from their willingness to express themselves and from their farewell after class. • I need to make decision after referring to my reflective journals.

Source: *Author*

Phase 3: Implementing PMP in Class - Each participant independently implemented PMP in their EFL class for five weeks. The researcher observed each participant's class twice, recorded teaching practices and student feedback using a checklist, and required the teachers to maintain reflective journals.

Phase 4: Survey Questionnaire - At the end of the five-week teaching period, participants completed a survey questionnaire with eight open-ended questions. The questionnaire sought their opinions on the feasibility of adopting PMP in their specific working context.

3. RESULTS AND DISCUSSION

The researchers identified and analyzed themes and factors based on Kumaravadivelu's (2006) model of post-method parameters and pedagogic indicators, and presented the summary of the themes in the form of a table (see in Table 2). The teaching approach in this study is considered a complex, emergent, and self-organizing process, requiring a detailed and comprehensive description. The emergent themes were categorized according to Kumaravadivelu's model of the Post method framework, which encompasses four main phases: (a) teacher's identity, (b) context sensitivity, (c) teaching strategies, and (d) teacher's reflection. Teacher's self-cognition refers to the teacher's understanding of herself/himself and individual autonomy. Context sensitivity involves making sense of the teaching environment, students' feedback, and emotions. Teaching strategies pertain to the identification and implementation of strategies for student learning. Finally, teacher's reflection signifies the initiation of a new teaching approach cycle, incorporating insights from the other three phases.

3.1 Teacher identity: from passive knowledge deliverer to active participant in the teaching activity

Teacher identity is a fundamental aspect of teaching practice, and this study revealed significant shifts in the participants' perception of their roles as EFL teachers through the implementation of PMP. The process of adopting PMP led to a transformation from being passive knowledge deliverers to active participants in the teaching activity. The participants' teacher identity formation was influenced by various factors, including reflections on their classroom practices, discussions on native/non-native English speaker distinctions, emotional experiences related to identity, and their knowledge of post-method pedagogy and its constraints. Notably, the changes in their teaching approach were primarily observed in their recognition of their identity as EFL teachers. It is important to acknowledge that these changes in identity formation may be temporary and subject to the temporary stimuli of the training, thus potentially lacking long-term stability. As suggested by Fairley (2020), in language teacher identity development, the features of this development comprise transformative, agentive, advocacy, and a competencies-based approach.

3.2 Teacher's belief: from teacher-centered model to learning-centered model

The implementation of PMP within the community revealed a common realization among teachers that their student-centered teaching beliefs were not consistently reflected in their actions. This recognition prompted a collective effort to reassess the ways in which students could be placed at the center of the learning process. Teachers began to consider the specific needs and motivations of their students, leading to adjustments in teaching goals and content. Initially, teaching goals were primarily determined by the syllabus requirements and the teachers' own experiences. However, as the community embraced a more context-sensitive approach, they started to re-evaluate the authentic needs of their students and adapt the weighting of teaching goals accordingly. This shift in perspective allowed the community of teachers to foster a more student-centered and responsive learning environment, which in turn helped the teachers have a more positive emotional feedback and self-belief in teaching (Czajka & McConnell, 2019).

The first teacher shared her reviews of the practice:

"The teaching goals of literature course lie in two aspects, language and interpretation...to my experience, the literature course is an advanced course which cannot just cater for the students' needs of language skill learning,

but should put more importance on how to improve their critical thinking and values."

"In the past, I aimed to provide new perspectives for the students to view the world as the ultimate objective, so when I designed the questions, I always gave those of abstract or literal type that focuses more on readership and their spiritual experience. However, enlightened by maximizing learning opportunities, I think I should do something first to meet their learning needs. What do the students want to get from the class? I assume that they have three needs: the story content, language skills and spiritual improvement. Following the path, I need to review my questions."

From the above excerpts, we can notice that the teacher started to convert her belief in choosing the proper goals and designing the class. Rather than sticking to her own experience of reading who is obviously a much more advanced English learner than her students, she took the initiative to come down to the real class and get to understand the students more.

3.3 Teacher's autonomy: from a content driller to a believer to more possibilities

The teachers in this study exhibited limited knowledge and awareness of teacher autonomy. Their perception of autonomous action primarily involved extensive preparation of teaching content through reading relevant materials. However, there was a lack of consideration for the student's perspective, resulting in a rigid and fixed teaching approach. Despite being exposed to post-method pedagogy, the teachers were hesitant to make significant changes to their teaching models. This reluctance stemmed from concerns about potential discomfort for the students, highlighting a weakness in their language teaching knowledge and reflecting a lower level of autonomy in practice. It was found that the English researcher found teachers' autonomy increased as they become professionals, and this serves as the key for improving teacher job satisfaction and retention (Worth & Brande, 2020). In light of the findings, it is important to consistently enforce PMP and practice detailed teaching standards and appraisal:

"I think the major autonomy for a literature teacher is to read more, not limited by the textbook but in all areas. In class, the students restrain my autonomy. When we communicate smoothly, I feel I am free and have a lot of choices. When we cannot communicate smoothly, I feel depressed that I can only transfer the information rather than elicit the understanding."

"Although it aims for teacher growth, both teachers and students will grow if the teacher takes the method in his/

her class planning because teachers' more autonomy should be based on the teacher's broad reading and critical thinking and giving the teacher much autonomy may ensure the students' more learning or thinking opportunities."

There existed a disparity between the theoretical and practical levels of teacher autonomy. Bridging this gap requires not only professional knowledge of language education, but also a contextual understanding of students' proficiency levels and emotional needs. From the excerpts, it can be observed that while the teacher's progress in expanding her autonomy was limited, she did demonstrate a growing recognition of the importance of providing students with increased learning opportunities.

3.4 Teacher's role: from a lone worker to cooperator

The teachers in the study acknowledged their role as guides in the classroom and attempted to fulfill this role by adjusting the manner and order of their questioning to make it clearer for the students. However, the students did not perceive themselves as the center of the class. Instead, they felt like they were being taught and constantly trying to catch up. The teachers aimed to establish a friendly relationship with the students to facilitate smoother communication, but they struggled to improve the dynamics of their relationship and interaction.

PMP appears to emphasize the transformative intellectual role of the teacher, encouraging them to go beyond the limitations of traditional methods and explore new possibilities in the classroom together with the learners. It also recognizes that teachers can contribute to the development of teaching theories and approaches, not solely relying on existing theorists' methods. Enabling teachers to become their own theorizers is an important aspect of post-method pedagogy and teachers should be empowered o shape and reshape their own teaching and develop applicable teaching ideas (Al-Kadi, 2020). This perspective highlights the need for teachers to actively engage in ongoing reflection and exploration of teaching practices to enhance student-centered learning experiences.

"I think the teacher should be a guide in class and it is determined by the course or the subject that you can't dominate the class or teach everything. I don't think I am satisfied or discontented with the role, but only feel it's such a complex and challenging job that I need to read more to shoulder the job of being a guide, and I enjoy the role in this way."

"Post-method pedagogy proposes both the teacher and the learners should be explorer. This lets me think

about such a question: What is the condition to be an explorer? Independent thinking is essential. Besides mental independence, the ability to question is also necessary. Therefore, in my class, the questions offered by me should take the students' real situation into consideration."

From above data collected from the interview, during the implementation of post-method pedagogy, the teacher started to engage in reflection on the role of the explorer, as proposed by Kumaravadivelu, and considered the necessary conditions for fulfilling this role within her teaching context. The teacher recognized that facilitating independent thinking, which encompasses critical thinking and the ability to question, was crucial. However, the teacher still heavily relied on own experiences and assumptions, resulting in the development of vague and unsubstantiated theories when attempting to construct self-teaching framework. This highlights the need for a more systematic and evidence-based approach to theory-building in order to enhance the effectiveness and reliability of the teaching practices.

3.5 Context sensitivity: trying to understand the contextual effects from more perspectives

Context plays a pivotal role in language as discourse. Initially defined by Celce-Murcia and Olshtain (2016), discourse refers to spoken or written language that exhibits identifiable internal relationships in terms of form, meaning, and coherence, which are aligned with a communicative function, purpose, and specific audience or interlocutor. The emphasis on context has enhanced the connection between language structure and its immediate social context of use. Consequently, it has facilitated the exploration of classroom techniques such as turn-taking, turn sequencing, activity types, and elicitation techniques in language classrooms.

In essence, context sensitivity necessitates teachers to adjust language operations at the interface of cultural and ideological meanings, while also considering the underlying forms of language that contribute to the organization of such meanings (Carter & McCarthy, 2010). However, for many CEFL teachers, developing context awareness, particularly an understanding of the practical context of language teaching and learning, is not as intuitive as textual awareness.

"The students' different proficiencies including reading ability, cognitive level, and social experience. I cannot guide them to the point or elicit the expected answer from them."

"technology is a good invention, because it allows the students to get the information from the internet easily and makes the foundation knowledge become not only textbook thing."

"I have to pay attention to the social shifts and the political, cultural environment when preparing the class."

Through the implementation of PMP in the classroom, teachers have shown an increased awareness of the broader context within which their teaching takes place. This expanded perspective encompasses considerations such as students' diverse backgrounds, the influence of technology, and the socio-cultural environment. By taking these contextual factors into account, teachers like Emmy are better able to understand and respond to students' feedback and different reactions in class, leading to more effective communication. In the design of their lessons, teachers now consider the students' needs and existing knowledge, aiming to identify information gaps and focus areas for the class. However, there may still be limited adjustments in teaching techniques to accommodate the individual personalities and characteristics of the students.

3.6 Students' role: fixing the disconnectivity between teacher and the students

PMP assumes that language learning is an activity which requires the learners to autonomously direct, regulate, and take responsibility for themselves (Safari & Rashidi, 2015). In fact, the requirement can only be realized with teachers' promotion for their strategic investment. Thus, learner in post-method has a meaningful role in pedagogic decision making (Kumaravadivelu, 2006), so the teacher must pay attention to the students' role in class and activate them to develop their autonomy when they are given an active and meaningful role in classroom.

"I hope we can become friends and equally share our ideas on a work… but in fact, it's very difficult because the students' different proficiency including reading ability, cognitive level, and social experience. I cannot guide them to the point or elicit the expected answer from them."

"I think the biggest difficulty lies in students' poor or not enough reading expiration, or motivation for the literature. Because in literature class, they seldom get the learning of the language skills or strategies, they don't think the literature study is practical."

"In my ideal class, I can hear students talk, communicate and share all the time. But in reality, I do most of the talking and students just listening."

Students play a passive role in class, as they listen, watch, think less and speak little. When the teachers reflected on the students' class responses, it is believed that students' proficiency and motivation differed and resulted in an inactive class. When implementing the post-method of context-sensitive approach, the students'

participation still formed the major difficulty for their teaching since teaching autonomy was much influenced by the students, but teachers always ignored their teaching autonomy in altering the teaching methods and strategy investment can influence the students vice versa.

3.7 Teaching method: exploring more possibilities

The term "methods" as used in the field of second and foreign language (L2) teaching, does not refer to what teachers actually do in the classroom; rather, it refers to established methods conceptualized and constructed by experts in the field. However, post-method pedagogy tries to invoke the teacher to rethink and theorize their own teaching. The teachers are experienced teachers and have a strong belief in what they choose to do in class. With the teachers' traditional knowledge of teaching methods, their teaching practice mostly focuses on the trying out the effectiveness of certain teaching methods. Therefore, they altered the teaching methods according to the procedures prescribed by the textbook and examine the availability of the teaching methods in class, rather than combining or creating their own teaching methods in class.

"I have always been perplexed by the choices of methods. I used to use one method when I was a green hand, but gradually I noticed that one method can't meet different works…Now I have two major methods: one is to teach, the other one is to ask questions. I mean I give them questions and we discuss together."

"post-method pedagogy proposes to train teachers and learners to be explorers. In my class, I practiced this by adjusting the order of questions. I led them to enjoy the process of exploring, from description to comment, from objective to subjective. The principles behind this are to help students conquer the horrified mood for the course, and to prepare them well before independent thinking."

Through the PMP practice, the teachers started to follow the five processes (knowing, analyzing, recognizing, doing and seeing) approach to realize new possibilities in class. Before this, their teaching process included only two parts: building a viable professional, personal, and procedural knowledge base, and teaching. In the latter process, they urged themselves or get empowered to start to analyze learner needs, motivation, and autonomy, to recognize their own identities, beliefs, and values. By implementing these two procedures, she would theorize and know better about her teaching.

3.8 Teaching reflection: seeing from multiple perspectives

In this research, the diary is a resource of data collection as well as a prompt for the teacher to reflect

on her teaching. In the process, we can notice that the teachers not only did reflection-on-action which occur before and after a lesson, but also reflected during the class by monitoring the ongoing performance and students' feedback.

> *"When reviewing my teaching, I usually made the decision by myself. I think I wanted to make a student-centered classroom, but actually it's still a content-based or teacher-centered one."*

> *"The principle of maximizing learning opportunities gives me a chance to reflect my class. In the past, I mainly focused on the chances to stimulate the students' thinking. And now, the principle lets me realize that I ignore the students' participation before. In fact, not all students' needs are the same in the literature class. Maybe some guys just want to learn what happen in the story, others maybe want to learn the language, and maybe someone attends the discussion for the reason I take for granted before the class---to get a different understanding about the world or to think something we never thought worth thinking. Maybe I need rethink the principle of designing the questions before the class."*

> *"Feedback from students: Although I didn't ask students' feedback directly, I can feel their relax from their willingness to express themselves and from their farewell. In the classes before, the number of students to give their voices is less than that in this class. Also, they usually left the class in silence before, but this time, almost every student by me said goodbye with smile and delight."*

The macro-strategy of "maximizing the learning opportunity" stimulated them to reflect their teaching before class as they planned for a lesson. Then, they reviewed the questions from the perspective of students and evaluated the effectiveness of the questions. When giving classes, the teachers started to notice the students' emotional feedback, locate unexpected problems on the spot and then adjusting teaching instantaneously. By reflection, their teaching autonomy in teaching has been improved and less restrained by the students.

3.9 Feasibility of the PMP

In this study, the teacher, as an independent implementer of PMP, practiced the PMP for five weeks in class after two-week training. Under limited access to PMP, incomplete understanding of PMP, and the first time of trial of PMP in class, the teacher got a positive impression on PMP as a whole. Three key factors emerged as being helpful in providing teaching guidance, allowing more freedom for the teachers to practice, and empowering the teacher to theorize their own teaching.

> *"It benefits me for that it offers me the basic guideline to make my teaching aims and to organize the class discussion."*

> *"It is worth to be spread because what the teachers need is the general guideline rather than the concrete teaching methods. Only after having the general idea in the minds, can the teachers think about the certain teaching methods used."*

Meanwhile, according to the teachers' response to the questionnaire survey, there are three major barriers to PMP, namely ideological barrier, pedagogical barrier, and experiential barrier. As Kumaravadivelu (2003) puts it, the base of PMP is the ideology of against the marginalization to valuing the colonial, center, theories, and methods through visible and accessible documentation or publication in favor of dominant side. The teachers, educated with the traditional sequence and theory-based coursework, cannot easily accept and convert to the PMP model that allocates the teachers to associate between PMP and other models, say CLT and eclectic method. In addition, teachers of the institution under investigation are less likely to have the training opportunity to get the newly developed overseas teaching pedagogy which sensitizes the CEFL teachers to local sociocultural contexts. Lastly, in the teachers' opinion, PMP depends much on the CEFL teacher's experience in multiple sides, professional knowledge, communicative teaching techniques, and the readiness and agency of unexpected changes.

> *"I think it can be realized on the condition that the teacher her/him self works hard enough. I personally think the realization of post-method requires the teacher's wide knowledge, which covers both professional knowledge and social knowledge."*

> *"To build a good communication with your students, to widen your knowledge and to be ready to appreciate any unexpected opinion in the class."*

As most PMP scholars believe, the post-method pedagogy has liberated the language teachers and learners from authorized knowledge systems and disseminated them into thoughtful consideration of unique local exigencies by cooperatively discovering their own styles and strategies (Chen, 2014; Golzar, 2020; Kandel, 2019). According to the results of this present study, post-method pedagogy with its macro-strategic framework and other frameworks can help to improve the CEFL teacher's teaching approach or readiness for the unexpected changes, including shaping the CEFL teacher's identity, promoting their context-sensitivity, reconsidering teaching strategies according to the principles, and forming regular reflection.

All aforementioned factors of teaching approach development is entrusted as a bottom-up way to summarize the emerging themes from the teachers' actual practice, which lead us to transform the roles of teachers from sheer language trainer to the educator or guide role for or within the life by enhancing the quality of life in the classrooms, updating tolerance and belief in the other beliefs and realities, collaborating but not competing among all the managers of language education, seizing the opportunities emerging in the negotiated interaction in class, embracing a sense of critical thinking regarding everything both inside and outside language education venue to reach the multiple realities.

4. CONCLUSION

In conclusion, this research highlights the transformative process experienced by CEFL teachers when implementing the PMP framework. The findings illustrate a reconstruction of teaching that involves a heightened focus on students' language needs, reevaluation of teaching identities, contextual awareness from multiple perspectives, regular reflection on classroom practices, and stronger connections with students to inform decision-making. However, it is important to note that participants' past experiences and teaching beliefs still played a significant role in shaping their decisions throughout the process, so experienced teachers should make a more effective adoption of PMP than the novice teachers. In addition, a positive outcome of this implementation is the increased awareness and consolidation of the teacher-student relationship in various forms.

Furthermore, this study revealed that applying PMP in the CEFL context is a complex undertaking. The challenge lies in being sensitive to the unique characteristics of teachers, learners, goals, institutional contexts, and sociocultural environments. Promoting learner autonomy and teacher autonomy in practice can be difficult, as there exists a gap between autonomous mindset and autonomous practice. Bridging this gap requires addressing factors such as teachers' professional knowledge of language education and facilitating effective and meaningful interactions within the context. As emphasized by Maley (2019) and Prabhu (2019) the importance of teacher autonomy on decisions as to which successful strategies to use in the classroom depends also on the specific contexts and on teachers' own "sense of plausibility" based on their own experience (Littlewood & Wang, 2022). Considering the preceding factors mentioned, future research needs to examine in-depth the relationship between different teacher communities and the functions and limitations of post-method pedagogy.

4.1 Recommendations for institutions

The EFL institutions and teacher training programs should include the PMP framework into the curriculum and provide clear guidance regarding the standards for teachers' professional development, emphasizing the importance of involving teachers in the design of content, processes, and objectives more actively. In implementing the PMP, the EFL teachers should undergo their teaching plan in a group-or-couple-based way that can form the triple-vision observation construct, which can not only offer more trustful feedback of the class, but also serve as a tempt for the teachers' professional development. The construct will play a crucial role in assisting teachers in identifying their primary developmental needs, process, and assessment. The successful implementation of PMP largely relies on how teachers and their partners perceive the relevance of the professional development they undertake to their actual teaching practice.

4.2 Opportunities for future research

This research presents fresh evidence on EFL teachers' PMP practice, providing evidence on the effectiveness and drawbacks of adopting PMP in the tertiary EFL classrooms in China. However, there are certain inquiries that remain unanswered due to limitations in the datasets employed. Regarding the influence of PMP on the teachers' teaching approach, the findings demonstrate the positive effects on certain aspects, such as teacher identity, context-sensitivity, teaching strategies and reflections, as well as potentially confirming some previous research on the disconnect between the theory and practical possibility. To fully grasp the intricacies of these findings, future research should delve into the detailed implementation of PMP in a larger range, and collecting the data from multiple parties, including the students and the observers, to make a more holistic and better implementation of PMP.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article. This article is the sole work of the author and has not been presented or published elsewhere.

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Appendix 1:

Interview questions
Semi-structured interview for the teacher:

1. Could you tell something about your experience in designing your EFL course?
2. What did you put on the top place to consider when you design the class?
3. What is your role in class?
4. How do you describe the teacher's relation with the textbook, with the syllabus, with the students?
5. Could you tell me your understanding of teacher's autonomy?
6. What is your opinion on different EFL teaching methods?
7. Do you think one fixed method is suitable to one particular course or otherwise? why?
8. Do you review or reflect on your own teaching?
9. If yes, please tell me how you do it. If no, why not?
10. Can you describe the ideal EFL teaching method in your mind? Could you note the discrepancies between your teaching reality and the ideal one?

Appendix 2:

1. Survey on your attitude towards using postmethod in your class (please write as much as you can under each item)
2. Could you describe your learning and practicing experience on postmethod pedagogy?
3. What did you do to practice the postmethod pedagogy in your class?
4. Does postmethod pedagogy benefit your teaching? Why or why not?
5. Do you think postmethod pedagogy can have any room in the EFL context you are in? If your answer is yes or no, please explain more.
6. What types of problems, constraints, or obstacles did you meet on the way of its realization in our context?
7. Can the postmethod be realized in the context of China? Please elaborate the basic conditions.
8. Would you yourself as a teacher prefer this pedagogy to apply in your classroom? Why or why not?
9. What are your suggestions, pedagogical hints, or advice to those who want to apply this pedagogy?

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Anthropogenic Impact on the Lake Ecosystem

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ABSTRACT

Introduction. In today's world rapid urbanisation travels at a very high pace, tarnishing our nature and wanderlust ecosystem without discriminating with any of the specific ecosystems. Human activities play a very prominent role in causing disruption to the wetland ecosystem and disbalancing the lake equilibrium. **Objective.** The present paper deals with the impact of anthropogenic activities on water resources and the lake ecosystem is degrading due to the encroachment of local livelihood. **Methodology.** To know about the human impacts on Anasagar Lake, conducted informal and open-ended interviews with local people residing near the lake area. To get more information about the human impact, interview the nearby farmers who have been practising agricultural activities for more than 20 years. This analysis attempts to identify the strategic factor which is responsible for the degradation of the lake. **Result.** There are multiple agents which are responsible for degradation of Lake Anasagar. It is important to find out the particular human activities that are responsible for lake water degradation. At the same time, it must be highlighted that the lake is in stress due to the encroachment of the basin, discharge of untreated sewage, fertilizer run-off, pesticides and solid waste dump. Conclusion. The majority of Lake Anasagar is facing the problem of Eutrophication due to discharge of untreated waste water, fertilizers, sewage and run offs containing higher values of chemical nutrients. It has caused a severe effect on fishes, frogs, crabs, etc. The out migration of birds is one of the easily recognisable changes of ecological pattern caused by anthropogenic activities. These factors are responsible for continuous degradation of Anasagar and they are often mutually reinforcing.

1. INTRODUCTION

The water resources of a country play a significant role in agriculture, horticulture, industrial activities, factories, fisheries, navigation, and recreational activities. The scarcity of water in an arid and semi-arid environment leads to intense political pressures, often referred to as "water stress" (Wolf, n.d.). Water for basic needs such as drinking and cooking is rationed to meet other needs such as irrigation, livestock watering, manufacturing of material goods, and recreational activities. However, agriculture and industry use the largest quantity of water annually.

In the past, wetlands were considered wastelands and drained for agricultural use, now wetlands are recognized for their value in improving water quality and their intrinsic value as ecosystems. Wetlands play an important role in improving the water quality by filtering sediments and nutrients from surface water (Mitsch & Gosselink, 2000) . Aquatic vegetation helps in removing around 90 percent of the dissolved nutrients like nitrogen and phosphorus and in adsorption of heavy metals. Lake is one of the important water resources used for irrigation, drinking, fisheries, and flood control purposes. It also

provides habitat for invertebrates, fishes and aquatic birds.

Anasagar wetland is one of the important productive ecosystems. A number of resources have been present in the vicinity of the lake area. Water is one of the important resources, which is used for irrigation, fishing, and recreational activity. On the other hand, it also provides a habitat for invertebrates, fishes and aquatic birds. This lake plays a significant role in the hydrological and ecological stability of the surrounding landscape. Changes in water quality were due to the use of land for agriculture after the water recedes in the dried-up area of the wetland, waste disposal and other polluting practices around the lake.

2. AREA UNDER STUDY

Anasagar Lake is an artificial lake situated in the city of Ajmer in Rajasthan state in India. This is one of the most beautiful lakes in India. Later, Mughal Emperor Jehangir contributed to the Daulatbagh gardens and Shah Jehan built the Baradari. It is situated at the centre of Ajmer city (740 38' - 740 42' and 260 25' - 260 29' N) (Fig. 1.). The lake is spread over 13 km. The lake has a capacity of 4.75 million cubic metres up to a maximum depth of 4.4 m. It has a catchment area of 70.55 sq. km (Mathur et al., 2010). Among the existing lakes in Ajmer, Anasagar Lake is the biggest one with the maximum catchment area. Foy Sagar is another major lake in the city. There are more than a dozen small ponds in Ajmer city. The Rajasthan High Court has banned construction in the catchment areas of the lake basins (Pandey et al., n.d.).

The area is in a stressful situation because of the urban activities which are taking place near the water body. This will eventually affect the water spread of the lake. Construction activities and disposal of chemicals and fertilizers in the lake are eventually polluting the water
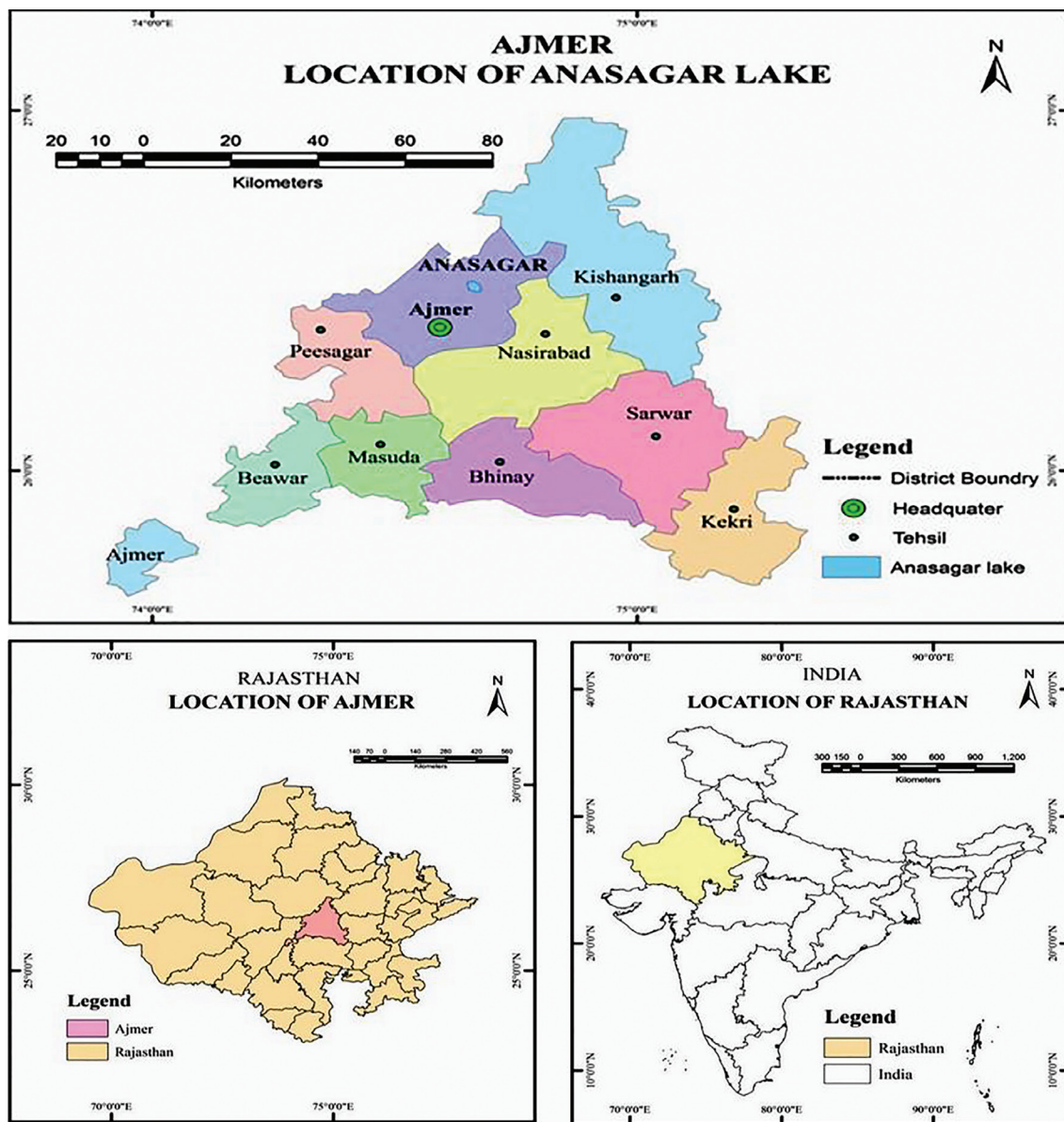
Figure 1. Location map of study area.

and directly affecting the habitat. Agricultural activities near the wetland lead to the influx of pesticides and harmful substances used by farmers for the cultivation of crops are changing the physiochemical composition of the lake. There is no proper disposal of garbage near the wetland, which is also a major reason for the lake's degradation.

3. METHODOLOGY

The Human impacts on the Lake ecosystem have been analysed by primary information. In addition to this, the questionnaire and field survey has been used to analyse activities affecting lake areas like sewage and municipal solid waste, use of detergents, pesticides and fertilisers, bathing, boating, recreation, religious ceremonies and use of the lake which is useful for examination of different human activities. The survey and the selection of interviewees have been done using the Stratified Random Sampling method. Observation of the selected field has been carried out at different time periods. A graphical representation of tabulated data has been done to enhance the depth of the research work. Data was represented with the help of different graphical tools such as bar diagrams, pie charts etc. Map-making work with the help of Microsoft's Excel or Arc GIS Software, etc. has been done.

4. RESULT AND DISCUSSION

4.1 Human activities affecting Lake

Through careful study and analysis of the Survey, there are many factors responsible for the deterioration of the Lake ecosystem. Agricultural Practices, disposal of untreated sewage and municipal waste water, mixing of detergent solution in the lake, run-off of fertilisers and residual pesticides, ritual bathing during festivals by Pilgrims and dumping of flowers and sculptures are the Primary anthropogenic activities responsible for pollution of Anasagar.

4.2 Discharge of waste water

Anasagar which was once a source of water for Ajmer has turned into a sewage dumping site. Urban growth of the city has completely changed the utility of the Lake ecosystem. During 1884, Anasagar ensured stable piped water supply to almost 50,000 population. It supported the growth of the city. Ajmer, a bustling urban center which witnessed rapid increase in economic activities attracted many more people from the countryside towards the city centre. Almost one third of the population of Ajmer now resides in the catchment area of Anasagar. This flux of economic migrants with little to nearly absent urban planning led to growth of urban sprawls with no properly planned drainage facilities and

congested roads. Untreated domestic waste water made its way to the Lake through many small and larger Nallas that were interlinked. These Nallas had come up as the settlement became dense. They are made of both burnt bricks and mortar (Pakka Nallas) as well as temporary arrangements (Kaccha Nallas). At most places, these are open drains. Several buildings (both partly constructed and complete) are seen in the Lake area. During the field survey, it was found that the sewage and sullage arising from households of the Lake basin, is taken into Anasagar through various Nallas namely, the Shantipura Nallah, Christianganj Nallah-1, Christianganj Nallah-2, Kazi ka Nallah, Nagfani Nallah (near Jain mandir), Chaurasiawas Nallah (near new Mittal hospital) Bandi River Nallah, Mahaveer Colony Nallah, Ram Nagar Nallah, Antend Nallah (near the old mental hospital) and Nallah Near Maheshwari Public School. The lake water pollution gets compounded with disposal of municipal solid waste in it.

Garbage and organic waste generated by food courts and other shops operating in the area finds its way to the Anasagar as a dump. Unauthorised settlements, as discussed earlier and encroachments in the catchment area of the Lake have resulted in shrinkage of Anasagar. The untreated sewage discharge has been a problem since long and it has brought several long-term changes in the Lake ecosystem. For example, introduction of invasive species and algal bloom effecting the marine diversity of the lake.

Exponential growth of algae is found in the sewage affected sites. The presence of species such as *Achnanthes hungarica, Ankistrodesmus falcatus, Chlorella vulgaris, Chlorococcum infusionum, Pandorina morum, Pediastrum tetras, Scenedesmus quadricauda, Stigeoclonium tenue* and species of *Navicula* and *Oscillatoria*, indicate show that lake is polluted. Sewage pollution has also contributed to the periodic growth of aquatic weeds, such as Typha, Ipomoea, Azolla, Vallisneria, Trapa and *Potamogeton* species in large quantities. Discharge of sewage, municipal wastewater and agricultural runoff has increased the primary productivity and physio-chemical values of the lake, resulting in eutrophic conditions.

4.3 Release of soluble detergents

Detergents get mixed with lake water through untreated municipal waste water discharge. People also use the lake for other utilities such as washing of clothes and bathing. It provides phosphorus to the lake which is a major nutrient responsible for Eutrophication. This phosphorus can also get mixed and deposited as sediments of the lake. This makes removal of excess nutrients difficult for longer duration. In case the concentration of iron is low, Phosphorus can remain in circulation between water and sediments for many years.

Aquatic life is also affected by a discharge of detergents, fishes are dying because of the high concentration of detergent dissolved in water.

Mostly the discharge of detergents takes place from dhobi ghat which is present near the lake for washing clothes they use lake water and drain their wastewater into the lake. Household work is also practised like washing utensils and washing of cloths by villagers present near the lake area. They are also discharging detergents in the Anasagar lake. The Anasagar Report file (2012), suggested that Internal cycling can generate over 90% of the Phosphorus that is available to plankton. In those water bodies where Nitrogen inflow is not reduced, Phosphorus is recycled between sediments and water. The phytoplankton of the water bodies is dominated by non-nitrogen fixing cyanobacteria such as Microcystis, Planktolyngbya and Oscillatoria. These Microsystis move vertically to consume phosphorus available at the water-sediment interface at the bottom and rise to form algal bloom at the surface of water bodies.

4.4 Influx of agricultural pesticides and fertilizers

The practice of unsustainable agriculture, aquaculture and horticulture in the catchment area of the lake is responsible for the influx of pesticides and chemical fertilizers. Farmers often use fertilizers very liberally in their fields to increase their produce. Excess fertilizer is washed into the lake during the irrigation or monsoon rains. Over-dependence on chemical pesticides for the cultivation of Trapa bispinosa and other fodder crops further exacerbates the situation. Organochlorine pesticides which are extensively used during cultivation, dissolve in water and with time get absorbed in the food chain of aquatic organisms. Through the survey, almost 46% of the population feels that a large area of the Lake is influenced by the discharge of chemicals and fertilizers in the Lake.

Lake Influenced by Pesticides and Fertilizers
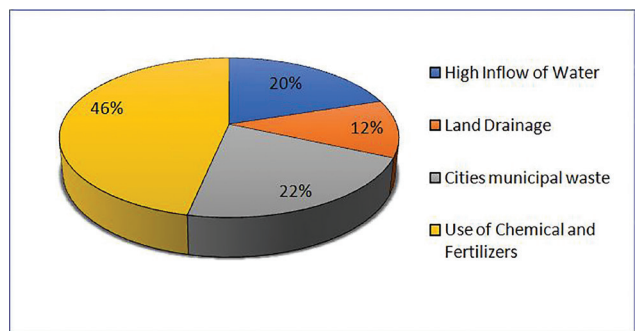
Source: *primary survey*

4.5 Influence of Sedimentation

Nagpahar, Taragarh and Anted hills lie in the catchment area of Anasagar. During monsoon rain, the Lake receives a large volume of run-off water from the hills which carries eroded soils. It causes sedimentation in the lake. These hillocks have a steep slope. Deforestation and removal of grass for domestic use has made it susceptible to erosion. Heavy rainfall in the area leads to strong downward current of water. It cuts through the already eroded landscape and intensifies erosion and sedimentation in the basin.

4.6 Urbanisation leading to lake encroachment

Rapid Urbanization in the city led to the encroachment towards the lake area. Construction activities near the wetland have boomed in recent years. This water body is administrated by the Urban Improvement Trust or Ajmer principal corporation department. The private ownership of commercial properties near the catchment area are disassociated with the proper management of pollution-causing factors. Various NGOs are inclined to create a pollution-controlled Environment, but they are prohibited by the private owners. Commercialization near the wetland promotes an unhealthy environment for the lake ecosystem. *Dhobhi Ghats* are one of the prominent metropolitan encroachments, allowing workers to rinse clothes and discharge detergents directly into the lake. There is no proper regulation to monitor such kind of actions by the authorities.

4.7 Religious activities contaminating water

Anasagar Lake is one of the most prominent tourist attractions in the city. Because of its religious values. Approximately 50000 people bathe on a daily basis during the Urs festival but the use of soap is forbidden as this rule is said by the citizen council of Ajmer. Sometimes the Hindu pilgrims offer flowers and *aagarbattis* to Anasagar Lake so it also has significance presents and serves as a sacred lake for Hindu pilgrims leading towards water contamination and water degradation.

4.8 Water quality and its effects on organism

During the survey which was performed on Anasagar found that the formation of algae on the top layer of water resulted in anasagar looking green. There a severe effect of fertilizers and pesticides on different organisms like fishes, birds, and macrophytes their life expectancy has been reduced. Migration of birds has taken place due to an increase in the pollution of lake water. Not only animals are dependent on this lake ecosystem but human beings are also dependent on this lake for agricultural practices, and fishing activities and they also collect plant products. There are different effects on different organisms which tells us more briefly about the human impacts on the lake ecosystem.

People perception about the change in colour of Lake water

Change in the colour of water
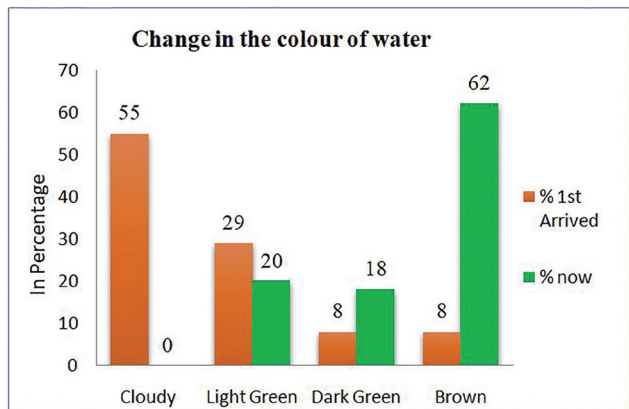
Source: *primary survey*

4.9 Effect on the aquatic life

Despite of declaration of the protected area, agricultural encroachment is continued in the marginal land of the lake area and uncontrolled use of pesticides and fertilizer in the agriculture field hurts the aquatic life of the lake. The large numbers of farmers are using fertilizers and pesticides. These agricultural fertilizers, pesticides, and harmful chemicals are coming into the lake through the runoff during the rainy season. This increases the nutrients in the water and subsequently causes eutrophication in the lake. Eutrophication provides a base for the deterioration of water quality (Mazumdar et al., 2007).

Many aquatic organisms have been dependent upon water for their habitat like frogs, crabs, fish etc. Many amphibians are highly dependent upon aquatic habitats and also water for the development of the tadpole larva along with the completion of their life cycle. Due to the deterioration of water, quality has been caused by the weak development of the adult. Consequently, life expectancy has been reduced in the Lake area.

4.10 Effect on the fishes

Anasagar is rich in diversity of the fish fauna. The lake has been provided as the breeding ground for a large number of fish and stocking facilities for migratory fish coming into the lake at the time of flood. At present, water quality is suitable for the fish fauna but in trends of status of water quality may cause a decreasing effect on fish fauna.

4.11 Effect on the Macrophyte

Anasagar Lake is rich in the macrophyte. Due to the shallowness of the lake, profuse growth of the macrophyte can be seen. However, the deterioration of the water quality of the lake causes more weed proliferation in the lake. Weed proliferation also averted the growth of the other useful macrophyte.

4.12 Effect on the Birds

Anasagar is rich in diversity of the bird fauna. Because of the decrease in the population of fishes in the lake, birds are forced to eat dead fishes due to which bird fauna is also affected by this lake water and which cause bird migration from this area.

Urbanisation Effects on Bird Migration.
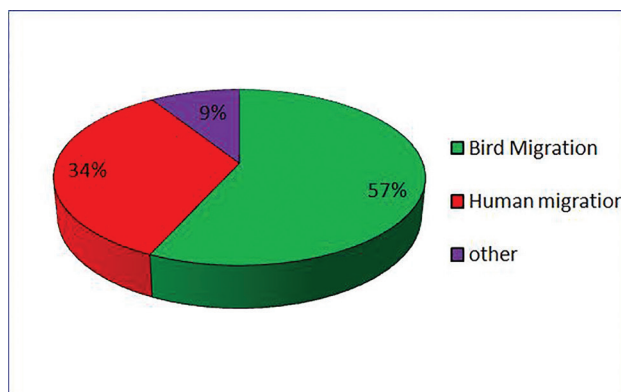
Source: *primary survey*

4.13 Effect on human health

The lake ecosystem is usually rich in fish, and biodiversity and may considered one of the most productive ecosystems for human beings. People reside the vicinity of the lake have been dependent on the for their livelihood and driving their life cycle for agriculture practises, Fishing activity, and collection of the plant product. Due deterioration of water quality has not been affected the only aquatic flora and fauna but also it affected the local habitat that resides near the lake. Fungal infection occurs as a common disease due to deterioration of the water quality.

5. CONCLUSION

Anthropogenic activities Like the discharge of sewage water from the city, Inflow of fertilizers and pesticides used in agricultural practices, and religious activities taking place in the vicinity of wetlands have forced the lake to become contaminated and degraded. Lake one of the main tourist places of the city is being converted into degraded Land where there is a smell that comes regularly when you pass by the water body.

The aquatic ecosystem is in a stress because of the decrease in the amount of dissolved oxygen required for survival. Religious activities like Pilgrim's bathing during Urs festival create pollution in the lake. Public dump flowers, clothes, pooja articles and plastic materials in the lake creating water blockage towards the drain area. The act of discarding God's sculptures for prosperity is

responsible for water pollution and severely damaging the quality of water. There is a need to create some government policies and public sensitisation for the conservation of the lake and make proper regulations for garbage disposal near the lake area. The lake ecosystem plays a very significant role in balancing the climatic condition of the city and is a key for development of Flora and fauna in the region.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article. This article is the sole work of the authors and has not been presented or published elsewhere.

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Preschool Teachers' Perceptions on Classroom Practices to Sustain Environmental Education Development

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ABSTRACT

In light of an increasing global environmental crisis, children need to become individuals who are sustainably conscious and responsible towards the environment. However, past research has shown that most preschool children merely acquired knowledge of sustainability but lack practical applications in their daily lives. This research study aims to look into preschool teachers' perceptions of Education for Environmental Sustainable Development (ENV-ESD), the level of integration of sustainability practices in classrooms, and the relationship between the two variables stated above. The study adopted a quantitative research design through survey research by using questionnaires. A total of 64 preschool teachers took part in this study from several private preschools in Petaling Jaya, a city in the Petaling District, in the state of Selangor, Malaysia. Results were then analysed by using descriptive and inferential statistics. Findings from the study revealed that although preschool teachers have positive perceptions towards Education for Environmental Sustainable Development (ENV-ESD), there is still room for improvement to integrate sustainability practices into the classroom's daily routines as the relationship between the preschool teachers' perceptions of Education for Environmental Sustainable Development (ENV-ESD) and the level of integration of such practices in classrooms is weak.

1. INTRODUCTION

An environment refers to all the living and non-living things that interact with each other to sustain life on this earth. In the world of 21st century we live in, rapid population growth, limited resources in the world and lack of environmental awareness threaten all living things (Stavreva et al., 2022). Through the years, the quality of the Earth's environment has deteriorated due to different types of human activity, which have resulted in several environmental disasters like pollution, global warming, climate change, depletion of the ozone layer, and many more. In addition, the Earth's natural resources are constantly being exploited without proper replacement which further leads to the imbalance of ecological systems and biodiversity. According to the Malaysian Department of Environment (2020), the country is suffering from air pollution due to industrialisation and fossil fuel combustion, land pollution due to problematic waste management, water pollution due to the discharge of chemicals into the ocean, and marine pollution due to single-use plastics found at the beach. These same environmental problems occur everywhere else in the

world and have become a serious global issue. During the 1972 United Nations Conference on the Human Environment, the concept of "sustainable development" was first introduced in the Stockholm Declaration (United Nations, 1972, p. 1). As defined by the World Commission on Environment and Development (1987, p. 43), sustainable development is an approach to changes to "meet the needs of the present without compromising the ability of future generations to meet their own needs".

Environmental Education (EE) was first introduced during the 1992 Rio de Janeiro Earth Summit organised by the United Nations. Agenda 21 in EE has been recognised as a crucial tool to promote sustainable consumption. According to Türkoğlu (2019), Environmental Education which is based on sustainability principles focuses on the coexistence and harmony between people and nature. It is thus a process that enables individuals to raise awareness of the problems faced by our environment, engage in solving these problems and take action for a better environment in future. However, in line with the changes in the world, EE has since evolved to become Education for Sustainable Development (ESD). Such educational reform is carried out to shift towards a more sustainable lifestyle in terms of its three pillars - environment, economy, and social and cultural for both present and future generations (UNESCO, 2002). Studies have been conducted henceforth by several researchers to evaluate Education for Environmental Sustainable Development (ENV-ESD). Researchers such as Joshi (2009), Moroye (2005), and Sterling (2003) have collectively found that education is the greatest agent of change to equip the current and future generations with knowledge and awareness of sustainability. Moreover, early childhood environmental education is envisioned as a unique form of environmental education that influences the emergence of various approaches and philosophical orientations (Ernst et al., 2019).

Since 2015, UNICEF introduced a global action known as the Sustainable Development Goals (SDGs) that act as a framework to ensure that no child is left behind by 2030. Following the lead by the United Nations (UN) body, the Malaysian Ministry of Education has begun to integrate EE into the National Preschool Curriculum Standard (NPCS) under the Humanity Strand KM5.0 "The Environment and I" (Ministry of Education, 2017). Out of the 17 SDGs laid down by the UN, 6 goals are closely related to the environment (UNICEF, 2020). The 6 goals are clean water and sanitation, affordable and clean energy, responsible consumption and production, climate action, life below water, and life on land. Malaysia has therefore renewed its commitments to implement SDGs to better meet the needs of children and reduce inequality. This is evident when Malaysia has included SDG in the latest version of the 12th Malaysia Plan.

Another SDG that is of paramount importance is quality education. This is related to Agenda 21 in the EE which stated:

"Children not only will inherit the responsibility of looking after the Earth, but in many developing countries they comprise nearly half the population. The specific interests of children need to be taken fully into account in the participatory process on environment and development in order to safeguard the future sustainability of any actions taken to improve the environment." (United Nations, 1992)

In Malaysia, several researches have been conducted to study the effectiveness of Malaysia's education system and curriculum on EE. Mohmadisa and Mohamad Suhaily Yusri (2005) and Mohammad Zohir and Sharifah Norhaidah (2005) have found that EE has not been fully implemented. Another study conducted by Neo et al. (2016) found that although Malaysians are equipped with the knowledge of the need to take care of the environment, most of the citizens do not carry out the necessary actions. Other studies have also shown that there is a low awareness and commitment level to environmental issues in school communities (Aini et al., 2009; Arba'at et al., 2009; Fatimah et al., 2011; Mohammad Zohir, 2009; Nor Aznan et al., 2010). In yet another study by Hanifah et al. (2015) on five hundred (500) 6-year-old preschool children, the results revealed that although the level of knowledge of environmentally sustainable development of preschool children is high, the practical application of 3R (reduce, recycle, reuse) is merely at a moderate level. Preschool children are only equipped with environmentally sustainable development knowledge but lack practical application of sustainability practices. There is therefore no continuity and preservation of knowledge by the preschool children (Mahat, 2019).

Therefore, the question remains whether preschool teachers in Malaysia are equipped with positive perceptions to integrate sustainable practices in the early childhood education classroom. In this study, teachers from several private preschools in the city of Petaling Jaya were chosen as respondents. This is because the syllabus used in private preschools could be modified and does not completely comply with the National Preschool Curriculum Standard (NPCS), and with the elements of Environmental Education (EE) in it (Lily & Mohamed, 2013). The three research objectives formulated on Preschool Teachers' Perceptions of Classroom Practices to Sustain Environmental Education Development are:

i. To identify preschool teachers' perceptions towards Education for Environmental Sustainable Development (ENV-ESD).

ii. To determine preschool teachers' level of integration of environmental sustainability practices in classrooms.

iii. To examine the relationship between preschool teachers' perceptions of Education for Environmental Sustainable Development (ENV-ESD) and the level of integration of environmental sustainability practices in classrooms.

2. LITERATURE REVIEW

Education is the greatest agent of change to nurture children who are able to conserve and preserve the environment in a sustainable manner (European Panel of Sustainable Development, 2010). The aim of the efforts for environmental protection, developmental and improvement is to ensure that individuals live in a healthier and safer environment (Stavrevaet et al., 2022). According to Agut et al. (2014), early childhood education is the prior step toward practising a sustainable life. This is because children are already able to show the virtues of responsibility and care for others in their early years, in which their curiosity level towards the environment is accounted to be the highest (Ozdermer & Uzun, 2006). Studies have also shown that children develop their thinking and feeling toward the environment at this stage which follows suit with the passage of years (Palmer, 1999). When children are taught about the natural environment from young, social consciousness to protect the environment will be moulded, further leading to more positive and self-conscious attitudes and behaviours in their future (Erten, 2003).Children thus need to be nurtured with a sense of respect and care for the natural environment from a young age, or else there is a risk that they will not develop these attitudes in later life (Stapp, 1978; Tilbury, 1994). According to recent researches, environmental education could lead to a change in relationship between the nature and human, thus empowering social transformation to raise children who are environmentally conscious (Ragni et al., 2021; Ricoy & Sanchez-Martinez, 2022).

In relation to the importance of Education for Environmental Sustainable Development (ENV-ESD) in the early years, teachers thus play important roles in the classrooms. As quoted by Bergan et al. (2021), teachers are crucial to conduct authentic practices that are related to environmental, social and cultural sustainability. They bear a huge responsibility to act as both (i) transmitters of knowledge and (ii) co-constructors of behaviours to the children. The role of an educator as a knowledge transmitter rings with Vygotsky's Sociocultural Theory,

which suggests that children learn and develop in their cognitive growth through social interaction with more knowledgeable peers and their cultures (Vygotsky, 1978). A positive learning environment offers a socially supported environment where the children are then able to apply their acquired knowledge based on what they have learned. Davidova and Kokina (2002) has proven that Vygoysky's theory is useful to handle issues related to sustainable development and environmental education. In order to achieve a socially supported environment, a teacher needs to firstly be equipped with a positive mindset, attitude and behaviour towards the environment so that children can interact positively with their peers on environmental issues (Summers, 2000). This thus comes down to the perceptions of preschool teachers on Education for Environmental Sustainable Development (ENV-ESD) because teachers' perceptions will influence their own attitude and behaviour towards the environment. As supported by Gan and Gal (2018) and Malandrakis (2018), how teachers perceive their own understanding of ESD aspects and their ability to integrate such practices are important. A teacher who shows interest will influence the children to prolong their interest and dive in deeper to the topic (Heggen and Lynngard, 2021).

However, knowledge alone does not easily lead to a change in behaviour (Kollmuss and Julian, 2013). It is the responsibility of the teachers to transform knowledge into actions by integrating environmental sustainability practices into the classrooms through the daily routines of children (Chauhan et al., 2012). Teachers and educators are the most effective deliverer of education to our young ones (Liu, 2009) and they should become the co-constructor of behaviour to nurture young children in becoming generations that can make the linkage between their knowledge and actions in daily lives. The Ecological System Theory upholds that the context that a child lives in will influence his or her behaviours and attitudes (Bronfenbrenner, 1986). As such, teachers should integrate environmental sustainability practices into the classrooms through the daily routines of children. Some examples of environmental sustainability practices that could be practiced in classrooms are requiring the students to bring their own handkerchiefs to school instead of using toilet papers to dry their hands, encouraging the use of recycled materials during arts and crafts session, setting up a "Recycling Corner'' in school, reducing the usage of air conditioner in classrooms and so on. This is done to ensure that children can make meaning and apply those environmental sustainability practices in their real lives as well.

Recent studies such as Butul (2021) and Meier and Sisk-Hilton (2017) have shown that although

teachers are having positive perceptions towards the natural environment, there will still be misconceptions. Some teachers were also not equipped to bring the full educational experience of learning in nature to the children in their classrooms which result in children could not develop a thorough understanding of sustainability (Butul, 2021; Meier & Sisk-Hilton, 2017). The linkage between teachers' perceptions and level of integration of sustainability practices thus comes into light, but the research gap as mentioned above will be further looked into and filled in in this paper.

3. METHODOLOGY

3.1 Research Method

This research study utilises a descriptive research design, which is a method using surveys or questionnaires to describe, compare and correlate information from a population of samples based on the quantitative data collected. The sample for this research study was taken by using the purposive sampling strategy which constituted a group of preschool teachers from several non-government (private) preschools in the area of Petaling Jaya, Selangor, Malaysia. A total of 64 preschool teachers took part in this study.

In Malaysia, there are numerous works of literature on Education for Environmental Sustainable Development (ENV-ESD). Most were conducted in preschools owned by the government. However, few studies were conducted in private preschools. In addition, there appears to be a gap in the curriculum used in private preschools as they could modify the National Preschool Curriculum Standard (NPCS) and miss out on Environmental Education.

3.2 Research Instrument

The instrument used to collect the data for this study is a set of questionnaires with 3 sections. Section A comprises six questions seeking background information and qualification of teachers. Section B comprises 16 questions that sought preschool teachers' perceptions of Education for Environmental Sustainable Development (ENV-ESD). Section C comprises 12 questions that sought preschool teachers' level of integration of environmental sustainability practices in the classrooms.

In Section B, the teachers were asked to indicate their perceptions towards Education for Environmental Sustainable Development (ENV-ESD) based on a 4-point Likert scale and multiple-choice questions. The items in this section were adapted and modified from three past studies conducted by Maidou et al. (2019), Cotton et al. (2007), and Park, et al. (2016). For questions 1–13, the teachers responded by selecting the answer that most reflected their personal beliefs with a scale ranging from 1= strongly disagree, 2 = disagree, 3 = agree, and

4 = strongly agree. For questions 14–16, the teachers had to select their answer(s) from a given set of choices regarding the following: (i) the teaching approaches that are most effective to deliver ENV-ESD, (ii) the most difficult aspect to implement ENV-ESD, and (iii) the most important necessary action to implement ENV-ESD.

In Section C, the teachers were asked to indicate their frequency of integrating environmental sustainability practices in the classrooms which will determine its level of integration based on a 5-point Likert scale. The items in this section were adapted and modified from research conducted by Raman and Abu Bakar (2019). The teachers responded by selecting the answer that most reflected their frequency of practices: 1= almost never, 2 = rarely (once per month), 3 = sometimes (once per week), 4 = regularly (2-4 times per week), and 5 = often (daily). The items in this section were further classified into four categories, namely (i) 3R practices, (ii) usage of eco-friendly products, (iii) usage of electricity and water and (iv) others.

The Cronbach's μ reliability coefficient for the Perceptions and Level of Integration scale was found to be reliable, with a Cronbach's μ value of 0.80. According to Deniz and Alsaffar (2013), Cronbach's μ that ranges from $r = 0$ to 1, with $r = 0.70$ or greater is considered as sufficiently reliable. On the other hand, content validity was measured to examine the validity of this study. The instrument of this study was reviewed and commented on by a panel of experienced lecturers from the Faculty of Education, Languages and Psychology of a local university, who are professionals in their field.

4. DATA ANALYSIS

The questionnaire was constructed in both softcopies by using Google Forms and hardcopy. Preschool teachers from preschool centres, which are located within Petaling Jaya, Selangor were first identified and contacted. Emails were sent out to invite these preschool teachers to take part in this research study and once they have given their consent, the survey questionnaires were sent out for them to complete.

Initially, the researcher sent out the questionnaires to one hundred (100) teachers. However, the questionnaire collected back was only 64. This is due to the incomplete responses from the respondents, in which the remaining 36 surveys need to be eliminated. The data collected were then analysed using Statistical Package for the Social Science (SPSS) version 22.0 for Windows software. Sections B and C of the research study were analysed and described by using descriptive statistics. Inferential statistics were also used through Pearson's Correlation test to determine the relationship between preschool teachers' perceptions of Education for

Environmental Sustainable Development (ENV-ESD) and the level of integration of environmental sustainability practices in classrooms.

5. RESULTS

5.1 Demographics of respondents

Table 1 shows the profile of teachers who took part in this study. Among the 64 respondents, there was a total of 63 female teachers, accounting for 98.40% of the respondents while there was only 1 male teacher (1.60%). Regarding the age group, 43 respondents (67.20%) were in the age group of 18-24 years old, 13 respondents (20.30%) were in the age group of 25-34 years old, 6 respondents (9.40%) were 35-49 years old, while 2 respondents (3.10%) were in the age group of 50-65 years old. There were no respondents aged 65 years old and above. On the other hand, 40 teachers (62.50%) were Bachelor's Degree holders, 15 teachers (23.40%) were Diploma holders, 5 teachers (7.80%) held an 'O' level (SPM) certificate and 2 teachers (3.10%) were qualified in Masters while 1 respondent (1.60%) had a Ph.D. In terms of years of experience, 54 respondents (84.40%) had 1–5 years of teaching experience, 6 respondents (9.40%) had 6-10 years of experience, 1 respondent (1.60%) recorded teaching experience of 11-15 years while 3 respondents (4.70%) had above 15 years of experience in Early Childhood classrooms. Furthermore, the majority of the 39 respondents (60.90%) were assistant teachers while

21 respondents (32.80%) were class teachers. Another 4 respondents (6.30%) considered themselves in the category of others which include principals and lecturers. Based on their background in Environmental Education (EE) during their formal studies, a total of 37 respondents (57.80%) answered yes while 27 respondents (42.20%) answered they had never received EE before.

5.2 Preschool Teachers' perceptions towards Education for Environmental Sustainable Development (ENV-ESD)

Table 2 shows the distribution of the total mean score and standard deviation of the preschool teachers' perceptions towards Education for Environmental Sustainable Development (ENV-ESD) in this survey. The midpoint score is calculated by having 13 (total numbers of questions from Q1-Q13) times 2.5 (lower limit on Likert scale of 1 plus upper limit on Likert scale of 4 divided by 2), which equals 32.50. With a total of 64 respondents who took part in this study, the mean score for the preschool teachers' perceptions is 44.94 with a standard deviation of 4.10. As the mean score (44.94) is higher than the midpoint score (32.50), this indicates that teachers have a more positive perception of Education for Environmental Sustainable Development (ENV-ESD).

Table 3 shows the ranking of frequency of the perceptions of preschool teachers towards Education for Environmental Sustainable Development (ENV-ESD) from

Table 1: Profile of teachers

Category	Sub category	Frequency	Percentage (%)
Gender	Female	63	98.40
	Male	1	1.60
Age	18–24 year-old	43	67.20
	25–34 year-old	13	20.30
	35–49 year-old	6	9.40
	50–64 year-old	2	3.10
	65 years old and above	0	0.0
Qualification	SPM	5	7.80
	STPM	0	0.00
	Certification	1	1.60
	Diploma	15	23.40
	Degree	40	62.50
	Masters	2	3.10
	PhD	1	1.60
Years of Experience	1–5 years	54	84.40
	6–10 years	6	9.40
	11–15 years	1	1.60
	Above 15 years	3	4.70
Position	Class teacher	21	32.80
	Assistant teacher	39	60.90
	Others	4	6.30
Background of EE during formal studies	Yes	37	57.80
	No	27	42.20

n=64 teachers

Table 2: Distribution of Mean and Standard Deviation of the Perceptions of preschool teachers on Education for Environmental Sustainable Development (ENV-ESD)

(n=64)	Mean (SD)	Midpoint score
Q1-13	44.94 (4.10)	32.50

Note: *Mean scores above the midpoint score indicate preschool teachers have a more positive perception of ENV-ESD*

Table 3: Ranking of frequency of the perceptions of preschool teachers on Education for Environmental Sustainable Development (ENV-ESD)

Dimensions	Questionnaire Item	Frequency
Q 14 : Effective teaching approaches for ENV-ESD	Outdoor education	52
	Multi-methods (e.g., discussions, books, role play, field trips)	46
	Critical thinking and problem-solving	40
	Recognizing and solving locally relevant issues	29
	Participation in decision-making	20
	Interdisciplinary and holistic	14
Q 15: The most difficult aspect to implement ENV-ESD	Lack of understanding of ENV-ESD	23
	Lack of knowledge of pedagogical content	16
	Parents' lack of interest in ENV-ESD	13
	Principal/director's lack of interest in ENV-ESD	10
	Lack of teaching and learning materials	2
Q 16: Most important necessary action to implement ENV-ESD	Applying ENV-ESD to the curriculum	19
	Expanding teacher training	15
	Developing teaching and learning materials	12
	Associating with families and local communities	10
	Cultivating the interest of the school	8

Note: *Question 14 is a multiple-choice question while Questions 15 and 16 are single-answer questions.*

the highest frequency to the lowest. In question 14, the top 3 most effective teaching approaches chosen were outdoor education, multi-methods, and critical thinking and problem-solving. A dominant group of 51 teachers chose outdoor education as the most effective teaching approach. This was then followed by the approach of multi-methods such as discussions, books, role plays, and field trips that were chosen by 46 teachers. Forty teachers deemed critical thinking and problem solving to be effective teaching pedagogy to deliver ENV-ESD, 29 teachers chose to recognise and solve locally relevant issues, while 20 teachers picked participation in decision-making. Only 14 teachers selected an interdisciplinary and holistic approach as an effective teaching approach.

In question 15, the highest chosen answer regarding the most difficult aspect to implement ENV-ESD was preschool teachers' lack of understanding of Education for Environmental Sustainable Development (ENV-ESD), which was selected by 23 teachers. Consequently, the second highest answer chosen was lack of knowledge of pedagogical content, as responded by 16 teachers. Next, 13 teachers selected a lack of interest in parents on Education of Environmentally Sustainable Development (ENV-ESD), while 10 teachers picked the answer of the principal/director's lack of interest. Surprisingly, two

teachers deemed a lack of teaching and learning materials as a barrier to implementing ENV-ESD.

In question 16, a dominant group of 19 teachers chose to apply Education for Environmental Sustainable Development (ENV-ESD) in the curriculum as the most important necessary action to implement the topic. This was followed by 15 respondents who selected the answer of expanding teacher training. Twelve teachers supported developing teaching and learning materials while 10 teachers picked associating with families and local communities. The least chosen answer was cultivating the interest of the school which was chosen by eight teachers.

5.3 Preschool teachers' level of integration of environmental sustainability practices in classrooms

Tables 4 and 5 show the distribution of the mean score and standard deviation of the preschool teachers' level of integration of environmental sustainability practices in classrooms. The environmental sustainability practices are divided into four dimensions, and each dimension's mean score and midpoint score are calculated, as well as the overall score. A mean score which is higher than the midpoint score indicates that teachers have a higher level of integration of environmental sustainability practices. The midpoint score for dimensions P1–P3 is

Table 4: Distribution of Mean and Standard Deviation of the level of preschool teachers' integration of environmental sustainability practices in classrooms for each dimension

Each Dimension	Mean (SD)	Midpoint score
P1: 3Rs Practices (Reduce, Reuse, Recycle)	11.27 (2.70)	9
P2: Usage of eco-friendly products	11.33 (2.66)	9
P3: Usage of electricity and water	12.72 (1.94)	9
P4: Others	7.97 (1.54)	6

Note: *Mean scores above the midpoint score indicate preschool teachers have a higher level of integration of environmental sustainability practices in classrooms for each dimension.*

Table 5: Distribution of Mean and Standard Deviation of the level of preschool teachers' integration of environmental sustainability practices in classrooms

(n=64)	Mean (SD)	Midpoint score
SUMB	43.28 (6.40)	33.00

Note. Mean scores above the midpoint score indicate preschool teachers have a higher level of integration of environmental sustainability practices in classrooms.

calculated by using 3 (total numbers of questions in each dimension) times 3 (lower limit on Likert scale of 1 plus upper limit on Likert scale of 5 divided by 2) which equals 9. On the hand, the midpoint score for dimension P4 is calculated by using 2 (total numbers of questions) times 3 ((lower limit on Likert scale of 1 plus upper limit on Likert scale of 5 divided by 2) which equals 6. The total midpoint score is calculated by using 11 (total numbers of questions for all dimensions) times 3 which equals 33.

The first dimension of practice is known as the 3Rs (Reduce, Reuse and Recycle) which include using both sides of paper, reusing recycled materials during arts and crafts sessions, and practicing recycling with the children in class. The mean score for the first dimension is 11.27 with a standard deviation of 2.70. Hence, as the mean score of 11.27 is higher than the midpoint score of 9, it shows that preschool teachers have a high level of integrating environmental sustainability practices in terms of the 3Rs.

The second dimension of practice is known as the usage of eco-friendly products such as encouraging children to bring their own handkerchiefs and food and drink containers to school. This practice is meant to uphold the principle of "zero plastic bottle" and "zero polystyrene" in class. The mean score for the second dimension is 11.33 with a standard deviation of 2.66. Hence, as the mean score of 11.33 is higher than the midpoint score of 9, it shows that preschool teachers have a high level of integrating environmental sustainability practices in terms of the usage of eco-friendly products.

The third dimension of practice is known as the usage of electricity and water which include practices such as turning off electric switches when not in use, limiting the usage of air-conditioners, and reminding children to save water from the water taps. The mean score for the third dimension is 12.72 with a standard deviation

of 1.94. Hence, as the mean score of 12.72 is higher than the midpoint score of 9, it shows that preschool teachers have a high level of integrating environmental sustainability practices in terms of the usage of electricity and water.

The last dimension of practice is labelled as others which include practices of ensuring the children only take the food portion that they can finish during meal times and encouraging children to participate in programmes related to environment sustainable development. The mean score for this dimension is 7.97 with a standard deviation of 1.54. Hence, as the mean score of 7.97 is higher than the midpoint score of 6, it shows that preschool teachers have a high level of integrating environmental sustainability practices in this area.

Therefore, it can be concluded that the preschool teachers who took part in this research study showed a fairly high level of integration of environmental sustainability practices in classrooms. This can be proven when the overall mean score of the preschool teachers' level of integrating environmental sustainability practices in the classroom (43.28) is higher than the midpoint score (33.00).

5.4 Relationship between preschool teachers' perceptions of ENV-ESD and the level of integration of environmental sustainability practices in classrooms

Table 6 shows the correlation coefficient between preschool teachers' perceptions of ENV-ESD and the level of integration of environmental sustainability practices as conducted in this survey. From the tabulated result, it was found that the correlation coefficient, Pearson's r = .30, was significant at $p < .05$. It also shows a positive correlation between the preschool teachers' perceptions and level of integration, indicating that preschool teachers who have a more positive perception lead to a

Table 6: Correlation between preschool teachers' perceptions of ENV-ESD and level of integration of environmental sustainability practices in classrooms

(n=64)		*Perception*	*Level of integration*
Perception	Pearson Correlation	1	0.297[*]
	Sig. (2-tailed)		0.017
Level of integration	Pearson Correlation	0.297[*]	1
	Sig. (2-tailed)	0.017	

* Correlation is significant at the 0.05 level (2-tailed).

higher level of integration. However, the result (Pearson's, *r* = .30) was a weak correlation.

6. DISCUSSION AND IMPLICATIONS

Based on the findings from the research, it could be seen that preschool teachers are providing an overall more positive perception towards Education for Environmental Sustainable Development (ENV-ESD) as the mean score (44.94) is higher than the midpoint score of 32.50. Perceptions are personal constructs developed by people that enable them to make interaction and interpret the world around them (Green, 2004). According to Irwanto (2002) in this context, a positive perception of ENV-ESD means that preschool teachers will continue the effort to accept and support environmentally sustainable practices. Most teachers, therefore, believe that they have good knowledge of ESD, and are passionate advocates for ENV-ESD. In addition, these teachers also believe that universities should provide in-service training for teachers at any level to improve their ability to deliver ENV-ESD to younger children and should be included in the curriculum, with specific teaching approaches derived.

From Table 3, the top 3 most effective teaching approaches that are selected by preschool teachers are outdoor education, multi-methods, and critical thinking and problem-solving. The importance and effectiveness of outdoor education are emphasised as Chawla (1999) and Palmer (1995) had proven that it is a starting point to link a positive bond between individuals and environments. This will then lead up to more responsible behaviours towards the environment in the long run. Recently, the revised version of Malaysia's National Preschool Curriculum Standard (NPCS) has integrated outdoor activities to promote students with 21st-century skills (Ministry of Education, 2017).

However, preschool teachers reported that the most challenging barrier to implementing ENV-ESD is the lack of teachers' understanding of ENV-ESD. This could be due to the minimal training provided by educational institutions on Environmental Sustainable Development (ESD). The majority of teachers in this study requested to be exposed to more training and educational courses related to the topic so that they can have more knowledge and feel more confident in this topic. As

supported by Davis (1998), professional organizations and educational institutions should work as advocates to promote Environmental Education (EE) as an essential element in both pre-service and continuous professional development for preschool teachers. Since Environmental Sustainable Development (ESD) is not taught as a stand-alone subject in Malaysia (Larsen & Azizi, 2000), it is urged that the Ministry of Education should lay down a standardised syllabus for ENV-ESD with clear guidelines and resources for teachers to teach the subject in the classroom. It is considered important to help children to acquire environmental awareness from early ages and thus, to foster the formation of environmentally literate adults (Marin et al., 2024).

The research findings also indicate that preschool teachers have a fairly high level of sustainability practices integrated into the classrooms. The majority of preschool teachers are already practicing sustainable usage of electricity and water since both amenities are regularly used in day-to-day living. The second most practiced sustainable practice by teachers is reported to be the usage of eco-friendly products. This is a positive sign that teachers are more aware and conscious of the products used in the classroom. When children are encouraged to bring their food containers and handkerchiefs to school every day, they will be influenced to do the same thing in their daily lives and outside of school as well, thus reducing the usage of single-use containers and tissue papers that will harm our mother Earth. This is to prepare children to becoming responsible and sustainability-oriented agents of change in their communities and society (Marin et al., 2024).

The third most sustainable practice is the use of 3R. The preschool teachers have already implemented them through reducing, reusing, and recycling. The level of integration is not as high as the previous two categories as some schools might not be equipped with recycling bins or even discourage the usage of recycled items. However, teachers who have the awareness should become advocates by voicing out to the management of the school or even become role models by implementing it in their classrooms first. Lastly, under 'others', preschool teachers are ensuring that the children do not waste food but take the portion of food that can be finished and

encourage the children to participate in environmental sustainable development programmes. Although it shows the lowest integration level among the 4 dimensions, it is still above the mean score which means teachers are showing a positive level to implement such changes in class.

From the analysis, there appears to be a weak positive correlation ($r = 0.30$, $n = 64$, $p = 0.02$) between teachers' perceptions of ENV-ESD and the level of integration of sustainability practices in classrooms. As supported by research studies, teachers' perceptions of ESD and the ability to integrate the practices are important (Gan & Gal, 2018; Malandrakis, 2018). The perceptions of teachers do influence the level of integration of practices, although the influence is weak. This indicates that although teachers in the study have strong perceptions towards ENV-ESD, there is still room for improvement for them to translate such perceptions into actions and truly integrate sustainability practices in classrooms. Despite having the knowledge, the reason for the lack of practical actions in daily classrooms by the teachers could be due to a lack of understanding of ENV-ESD. Without a meaningful understanding of the topic, it is unlikely that they will deliver the knowledge. As urged by Chauhan et al. (2012), an effective sustainable-orientated curriculum should also consist of turning environmental sustainability practices into daily habits.

7. CONCLUSION

Friedrich Froebel, the founder of early childhood education set up the first kindergarten, translated as the "Children's Garden" in the 19th century. He believes that young children and nature are in unity and should have a harmonious relationship. Thus, the garden becomes a crucial environmental element in the classroom design, shedding light on how children are deeply influenced by natural learning (Froebel, 1887). The early years of children are therefore deemed to be the golden years and an important first step to inculcate a sense of love and care towards the environment which further leads to a living of sustainable lifestyle (Agut et al., 2014). It was mentioned by the Swedish National Agency for Education (2018) that the curriculum should stress to lay the foundation for growing interest in environmentally sustainability development. Hence, it is crucial to have an effective environment education curriculum developed and integrated to the foundation of early childhood to raise awareness for the protection of the environment (Ozburak et al., 2018). However, while the environmental education is present in national curriculum, it was still insufficient as it is lack of teaching on environmental education in preschools (Otitoju et al., 2022).

The findings of this research study act as a database that sheds light on the current perceptions and level of sustainability practices that teachers hold on in the classrooms. Although preschool teachers have a positive perception towards Education for Environmental Sustainable Development (ENV-ESD) and a relatively high level of integration of sustainability practices in the classrooms, yet there is still room for improvement to transfer knowledge into action as the relationship between the two variables is weak. It is also urged that there is a need for government and educational institutions to provide in-service training related to ESD for preschool teachers and includes ENV-ESD in the school's curriculum so that it could be taught as a stand-alone subject in the classroom. Future research study should also try to capture more male teachers as respondent in order to obtain a more gender-balanced result.

"Sustainable Environmental Education" at early ages is important for creating environmental awareness (Ozburak et al., 2018). As quoted by a Native American proverb, "We do not inherit the Earth from our ancestors, we borrow it from our children". It is therefore the teachers' responsibility to instill both knowledge and actions on sustainable living in our young children's classroom routines which will also positively affect the children's daily life choices outside of school. The young ones are the future guardians of the Earth, and the seeds of conservation and preservation are to be sowed in their hearts and minds before it gets too late.

Declaration of Conflicting Interests

The authors declare that they have no competing interests.

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Stepping into the working world, I gained a lot of valuable teaching experiences in the related field. I strongly believe that children need to be connected to nature so that they learn to appreciate, take care and make sustainable choices in their everyday lives. This has led me to conduct my research based on sustainability and environmental education in preschool settings, in the hope of inspiring more teachers to make a change and bridging nature with children during their early years.

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Anna Phang, is a lecturer with more than 25 years of working experience in the educational field at different levels, both private schools, colleges, and universities.

Her educational philosophy is rooted in the principle that educators are not merely disseminators of knowledge but catalysts for change and growth. From early childhood to tertiary level, she has embraced diverse roles, from preschool teacher to program leader, each contributing to her holistic understanding of the educational landscape. Central to her philosophy is the belief that educators are 'Agents of Change' who possess the unique ability to inspire, motivate, and empower young minds to reach their full potential.

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The Effect of Peer Assessment Using Google Docs on Omani Grade Ten Students' Writing Performance

RESEARCH ARTICLE
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ABSTRACT

Introduction: Low writing performance among English Language students is a persistent issue in educational contexts, including Oman. This study investigates the effectiveness of peer assessment and Google Docs as tools to enhance writing performance among grade ten Omani students. It aims to compare these tools with traditional teacher feedback and evaluate their impact on students' writing skills and attitudes towards writing and educational technology. **Methods**: This quasi-experimental study involved 28 grade ten students divided into two groups: an experimental group (n=8) and a control group (n=15) and interview sample (n=5). The experimental group used peer assessment and Google Docs, while the control group received traditional teacher feedback. Data collection methods included pre- and post-tests to measure writing performance and interviews to gauge students' attitudes towards writing and educational technology. **Results:** *Writing Performance-* The analysis of pre- and post-test scores revealed a statistically significant improvement in the writing performance of the experimental group compared to the control group. This indicates the effectiveness of peer assessment and Google Docs in enhancing students' writing skills. *Attitudes Toward Writing and Technology-* Interviews conducted with the experimental group showed a more positive attitude towards writing and the use of educational technology. Students expressed greater engagement and motivation when using peer assessment and Google Docs compared to traditional methods. **Discussion**: The findings of this study highlight the potential benefits of integrating peer assessment and Google Docs into English language teaching. The significant improvement in writing performance and positive student attitudes suggest that these tools can effectively address low writing performance. The study supports the need for teacher training in the use of these tools, curriculum integration, and encouraging parental support for educational technology. **Conclusion**: This research contributes to the literature on the impact of technology and peer assessment on students' writing performance. It offers valuable insights for future English language teaching, emphasizing the importance of adopting innovative pedagogical and technological tools to enhance student learning outcomes. Recommendations include comprehensive teacher training, strategic curriculum integration, and fostering parental support for educational technology to maximize its benefits.

1. INTRODUCTION

The primary concern explored in this research is the insufficient writing proficiency among grade ten students in Oman. This issue presents difficulties for both educators and policymakers. Conventional teaching methods have proven ineffective in improving writing skills, necessitating the implementation of innovative approaches that align with the demands of 21st-century education. The objective of this study is to examine the influence of peer assessment, facilitated by Google Docs, on the writing abilities of grade ten students in Oman. Peer assessment involves students providing feedback on each other's written work, enabling them to identify strengths and weaknesses. Google Docs, as a technological platform, offers opportunities for collaborative learning and engagement, which is particularly appealing to the current generation of students. The implementation of peer assessment is supported by theoretical frameworks such as social constructivism and Vygotsky's social learning theory. Moreover, Self-Determination Theory (SDT) by Ryan and Deci emphasizes the psychological needs of autonomy, competence, and relatedness, which can be addressed through peer assessment (Deci & Ryan, 2000). The conceptual framework outlines the process, emphasizing the role of peer assessment in enhancing writing performance. The significance of this study lies in its potential to guide curriculum design, pedagogical strategies, and the integration of technology in Omani schools. The research objectives seek to investigate the effectiveness of peer assessment using Google Docs and explore students' perceptions of its impact on their writing abilities. The research questions delve into the extent to which this approach proves effective and students' opinions concerning Google Docs as a peer assessment tool.

The scope of the study encompasses factors contributing to writing performance enhancement, including the role of peer assessment and the efficacy of Google Docs. Data is collected through pre- and post-intervention assessments and interviews. The study's importance extends to various stakeholders, including students, teachers, curriculum designers, and educational policymakers. It addresses the pressing need to improve writing proficiency and explores innovative approaches to teaching writing. However, the study has limitations, such as its focus on grade ten students in one school, potentially limiting generalizability. It does not consider environmental and psychological factors during writing tasks or other variables affecting writing performance. The study solely investigates the short-term effects of peer assessment and does not explore long-term impact or sustainability.

English language learners face challenges in writing due to the need for proficiency in various aspects of the language. Traditional instruction methods can be monotonous and may not meet the demands of 21st-century learning. Learning with technology (Patra & Sahu, 2020) and more specifically, peer assessment using Google Docs, has been shown to be effective in improving writing skills (Hyland, 2003; Warschauer & Grimes, 2008). The authors aim to examine the impact of peer assessment using Google Docs on the writing performance of tenth-grade students in Oman to enhance their writing skills within the Omani educational context. Handayani, Cahyono, and Widiati (2018) have emphasized the importance of various sub-skills and psychological factors in the writing process. The results of this study shed light on how Google Docs can improve students' ability to produce well-constructed written compositions.

A comprehensive solution to this challenge involves embracing pedagogical and technological advancements (Mahalik, 2020). Peer assessment, a potent strategy for enhancing students' writing skills, allows learners to receive feedback from their peers. This process enables students to identify their writing strengths and weaknesses, providing a pathway for improvement. Concurrently, the integration of technology into education has become increasingly prevalent. Online tools, such as Google Docs, have gained popularity among educators for facilitating peer assessment.

In this study, the authors delve into the intersection of these two elements – peer assessment and Google Docs – with a focus on Omani grade ten students. The aim is to investigate the effects of peer assessment using Google Docs on the writing performance of these students. By doing so, the researchers endeavor to shed light on the potential of this innovative approach to enhance writing skills in the Omani context.

2. LITERATURE REVIEW

The low performance in writing among ELT students in Oman is a significant concern that necessitates effective solutions. It has been observed that traditional teaching methods often fail to engage students, making writing a less attractive and effective skill to acquire. Some students perceive that outdated teaching styles, which lack relevance to their interests, contribute to their low levels of English proficiency. Additionally, certain teaching techniques are criticized for fostering low order thinking capabilities, hindering the development of students' writing skills.

Writing skills hold a significant place within English language learning, enabling students to apply their language knowledge effectively. Writing serves

pedagogical purposes such as reinforcement, mental extension of language learning, and catering to long-term learners' needs (Triwinarsih, 2019). However, students often grapple with challenges related to linguistic abilities and accuracy when striving to acquire effective writing skills (Handayani, Cahyono, & Widiati, 2018). Consequently, scholars suggest the adoption of web 2.0 to enhance writing skills, recognizing its importance in the process.

According to Willey and Gardner (2010), Peer assessment is considered as formative strategy, equipping peers with systematic assessment and feedback on their current performance. It engages students in critical learning processes, including establishing assessment criteria and demonstrating achievement. Furthermore, peer assessment contributes to self-regulated learning and fosters external factors like peer roles among groups (Butter & Winne, 1995). This approach shares similarities with self-assessment, as both involve applying shared categories to evaluate one's own work.

Peer assessment places the responsibility of assessment on students, categorizing elements into assessment specifications, level of interaction, and group and role deviation (Topping, 1998). It serves five main aims, including social maintenance, pedagogical learning, and strategies for active participation. Exposure to peer assessment enhances students' self-confidence, encourages shared learning, and hones skills like critical discussion and evaluation (Gielen et al., 2011). Studies suggest that integrating peer assessment into education can positively impact student learning.

The use of technology in learning fancy many language lecturers. It boasts the motivation of the learners by using technology in classroom (Ebrahimi &Lovell-Johnston ,2023). The use of Google Docs in peer assessment has gained popularity due to its ease of use and effectiveness. Studies have found that it facilitates communication between teachers and students, streamlines activity control, and enhances the sequencing of class activities. In a study undertaken by Dominguez et al. (2012) on high education civil engineering students, the use of Google Docs was found to be both useful and easy. Additionally, it promotes long-term self-regulation abilities.

Teachers aim to enhance students' writing production by providing feedback that aids effective instructions delivery. Teacher feedback typically covers various aspects, including writing impact, supporting details, organization, content purpose, and audience-related elements (Connors & Lunsford, 1993; Sommers, l982). According to Connors and Lunsford (1993), teachers often focus on rhetorical aspects, organization, and planning to improve students' writing. In contrast,

students' comments tend to be more specific and may focus on particular areas of writing.

Past research has examined the impact of both peer assessment and teacher evaluation on student attitudes and academic performance. In a study conducted by Liu and Carless (2006), peer assessment is found to enhance writing quality and critical thinking skills. It promotes active learning and a deeper understanding of the subject matter. Furthermore, a study by Park et al. (2017) highlights that teacher assessment remains important but can be complemented by peer assessment. Peer assessment affords students valuable feedback and collaboration opportunities, contributing to better writing outcomes.

Students' perceptions play a crucial role in evaluating their participation and their ability to provide peer assessment. Kaufman and Schunn (2011) state that students may underestimate their ability for peer grading, but their perceptions can change with experience. Some students view peer assessment as fair and convenient, while others value criticism over praise as it contributes to writing improvement (Simkin & Ramarapu, 1997) and (Nelson & Carson, 1998). However, perceptions of peer assessment in second language (L2) composition remain relatively underexplored, with few studies focusing on this aspect.

Google Docs has gained attention as a valuable tool for facilitating peer feedback in English language learning. Woodard and Babcock (2014) states that it allows students to provide feedback on various aspects of writing, including content, structure, vocabulary, formatting, and referencing. Students' responses to peer feedback in Google Docs vary, with many adhering to the feedback provided. While students generally hold positive attitudes toward using Google Docs for learning (Bradley & Thouësny, 2017), challenges include teacher preparation and training to facilitate its use and potential variations in student interest and participation (Niroula, 2021).

3. METHODOLOGY

The quasi-experimental methodology employed in the study involves both an experimental/treatment group and a control group of grade ten students. It provides a detailed description of the research design, participant sampling, data collection instruments, procedures, data analysis methods, quality assurance measures, and ethical considerations.

The study's sample consists of grade ten students from one governmental school in Oman. The choice of grade ten is based on the students' advanced writing abilities, as they are expected to write essays based on data from graphs or charts, a curriculum requirement.

The sample includes a total of 28 grade ten students, distributed across three different classes: 8 students in the treatment group, 15 students in the control group, and 5 students for interviews. Each group comprises both high and low achievers. The control group received regular classroom explanations. On the other hand, the experimental group are given the opportunities for writing improvement after peer assessment and exposure to other writing pieces. The researcher trained the participants to use Google Docs for two weeks, but some students seemed to need longer training sessions. There are two markers who went through many stages of sample marking to determine the average score. Moreover, the two groups have a variety of levels, with no advantage noticed in one group over the other. Validation and reliability tests were conducted using a placement test to ensure the variety of levels among the two groups, followed by SPSS tools for further reassurance.

The primary research instrument is the essay writing task, modeled after the IELTS and Omani school's grade ten curriculum, with modifications to suit both levels. The task involves describing data from a graph or chart using the structure outlined in the course materials. Students are provided with a writing topic and asked to write an essay within forty-five minutes, following the provided structure. The treatment group is instructed to post their writings on Google Docs for peer assessment, while the control group receives the same topic but without using Google Docs. Both pre-task and post-task essays are evaluated using a rubric based on the IELTS Task One writing criteria.

Interviews are based on the Technology Acceptance Model (TAM), which illustrates how users accept and use technology. Three factors influence their decision: perceived usefulness, perceived ease of use, and user attitude towards usage. Perceived usefulness is the extent to which a user believes the technology will enhance job performance (Vianne & Murcia, 2017). Interviews are conducted with five students who are supposed to be part of the experimental group but they fail to submit the second drafts of the task.

The research commences with a placement test to measure students' language proficiency as a moderator variable. Students are divided into a control group and a treatment group. The placement test was a semester final summative test that included an integration of listening, grammar and vocabulary, reading, and two writing tasks. The pre-task involves synchronous and asynchronous phases, with students composing their essays independently and categorizing them based on the placement test. Peer assessment is conducted for two weeks, followed by revisions based on feedback. Two markers evaluate the pre- and post-task essays, adhering to an IELTS-based rubric. The research spans an entire school semester, with introductions and parental consent obtained in September, the pre-task administered in early October, and interviews conducted in late November.

Data collection occurs throughout the semester. The pre-assessment task provides quantitative data, while interviews yield qualitative data on student perceptions. Data are coded and analyzed to identify patterns and themes. Triangulation of data sources enhances the reliability and validity of findings.

Qualitative data analysis is adapted from grounded theory, while quantitative data analysis includes statistical tools such as the independent sample t-test and paired sample t-test. Quantitative data from essay tasks are analyzed statistically to measure the impact of peer assessment via Google Docs on students' writing performance.

Quality assurance is ensured through data triangulation, combining quantitative and qualitative data sources. Triangulation enhances the validity and reliability of findings.

Confidentiality and anonymity measures are also implemented, ensuring ethical conduct in data collection and reporting. Ethical considerations include obtaining informed consent from parents, maintaining participant confidentiality, and ensuring that data are used solely for research purposes. Anonymity is maintained throughout the study, and personal information is kept confidential.

4. RESULTS AND DISCUSSION

To ensure that the control group and the experimental group have the same range of levels the students from the control group were chosen from a full class from the school which guarantee the variety of levels. Table 1 illustrates the scores of students in both groups before the study groups prior to conducting the study.

As it is shown in Table 2, The mean difference between the two groups is 6.72. The result id F value in Levene's Test for equality suggest that suggests that there is no difference in the variances between the groups being compared, or that the difference is so minuscule that it rounds down to zero for the statistical test.

Table 3 illustrates the scoring which is the average of two markers on students' first draft of control group and two drafts (pre and post) experimental group. The marking rubric was adapted from IELTS (Task one) marking criteria. It comprises four marking Criteria, Task achievement, Coherence and Cohesion, Lexical Resources grammatical Range and accuracy.

The type of feedback includes the organization, grammatical mistakes, and spelling mistakes. These

Table 1. The overall score of Grade ten final exam for both groups prior to conducting the study

No.	Experimental group (EG) (8 participants)	Control group (CG) (15 participants)	Percentage key
1.	A)90)	D (50)	A: 90-100%
2.	C (75)	C (71)	B: 89-80%
3.	B (80)	C (67)	C: 79- 65%
4.	C (70)	C (74)	D: 64-50%
5.	A (90)	D (58)	
6.	C (65)	A (91)	
7.	C (65)	C (65)	
8.	D (59)	B (86)	
9.		D (52)	
10.		B (80)	
11.		C (70)	
12.		D (58)	
13.		D (50)	
14		C (70)	
15.		C (71)	

Source: *Authors*

Table 2. Independent Sample Test of the two groups prior to conducting the study

T-TEST /VARIABLES= SCORES
/GROUPS=group (1.2)/MISSING=ANALYSIS
/CRITERIA=CI (0.00)

Group Statistics

Group	N	Mean	Std. Deviation	S.E Mean
"1"EG	8	74.25	11.66	4.12
"2"CG	15	67.53	12.45	3.21

Independent Sample Test

	Levene's Test for Equality of Variances		T-Test for Equality of Means					95% Confidence Interval of the Differences	
	F	Sig	t	df	Sig. (2-talled)	Mean Difference	St. Error Difference	Lower	Upper
Equal variances assumed Equal variances not assumed	.00	.948	1.26	21.00	.222	6.72	5.34	-4.38	17.82
				15.28	.218	6.72	5.23	-4.41	17.84

Source: *Authors*

types of errors are common in student writing, and the peer assessment process can be particularly effective in identifying them.

Experimental group had an overall score out of 9 ranging from 2 to 7.75, with a mean score of 5.5313 and a standard deviation of 1.7. The controlled group had an overall score out of 9 ranging from 2.5 to 6, with a mean score of 3.95 and a standard deviation of 1.06.

The results indicate that experimental group had a higher mean score than the controlled group, with a difference of approximately 1.58 points. However, the standard deviation of the experiemental groups's scores is higher than that of the control group, indicating greater variability in scores.

These findings suggest that peer assessment using Google Docs may have had a positive effect on the writing performance of the students in experimental group. However, further research is needed to confirm this, as there may be other factors influencing the results. Additionally, the limitations of the study, such as the small sample size and should be taken into consideration when interpreting the results.

The experimental group had a higher mean score of 5.5 and larger standard deviation of 1.7 compared to the control group, which had a mean score of 3.9 and standard deviation of 1.06. The difference in means was 1.6, suggesting superior performance in the experimental group. However, there was more variability in the experimental group scores. Further investigation is needed to confirm the positive effect of the experimental intervention and understand the sources of variability in the experimental group scores.

The average score for the first draft was 4.15 (SD=1.19), while the second draft had an average score of 5.5 (SD=1.7). The paired-samples t-test indicated a significant difference between the mean scores of the two drafts (t (7) = -2.94, p = 0.022, d = 1.3). Based on the data, peer assessment via Google Docs positively influenced the participants' writing progression. The improvement in

Table 3. The overall score of the final writing of both groups after conducting the study

No.	Experimental /9 (8 participants)	Control /9 (15 participants)
1.	5.5	4.5
2.	4.75	2.75
3.	2	3.25
4.	6.75	3
5.	5.5	6
6.	7.75	3
7.	6.5	3.75
8.	5.5	4.5
9.		4.5
10.		4.5
11.		3.75
12.		6
13.		4
14		2.5
15.		3.25

Source: *Authors*

Table 7. The score of pre- and post-task among the experimental group

Student	Pre- task score (first draft)	Post-task score (Second draft)
1	4.5	5.50
2	4.75	4.75
3	2.00	2.00
4	3.25	6.75
5	3.50	5.50
6	5.50	7.75
7	4.25	6.50
8	5.50	5.50

Source: *Authors*

Table 4. The two groups' statistics after conducting the study

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Score	EG	8	5.5313	1.70837	.60400
	CG	15	3.9500	1.06988	.27624

Source: *Authors*

Table 5. Independent Sample Test for Equality of means

Independent Samples Test

		t-test for Equality of Means			
		Significance		Mean Difference	Std. Error Difference
		One-Sided p	Two-Sided p		
Score	Equal variances assumed	.006	.012	1.58125	.57682
	Equal variances not assumed	.019	.039	1.58125	.66417

Source: *Authors*

Table 6. Independent sample T-test with 95% confidence Interval of the difference

Independent Samples Test

		t-test for Equality of Means	
		95% Confidence Interval of the Difference	
		Lower	Upper
Score	Equal variances assumed	.38169	2.78081
	Equal variances not assumed	.10169	3.06081

Source: *Authors*

Table 8. Paired sample Test for the pre and post task

Paired Sample Statistics

		Mean	N	Std. Deviation	Std error mean
Pair	PRE TEST	4.1563	8	1.19476	.42241
	POST TEST	5.5313	15	1.70837	.60400

Pair Sample Correlation

		N	Correlation	One-sided p	Two-sided p
Pair 1	PRE & POST TEST	8	.636	.045	.090

Paired Sample Test

		mean	Std Deviation	Std error Mean	95% Confidence interval of Difference		t	df	One sided p	Two-sided p
					Lower	Upper				
Pair 1	PRE & POST TEST	-0.37500	1.32288	.46771	-2.48095	-.26905	-2.940	7	0.11	0.22

Paired Sample Effect Sizes

			Standardizer	Point Estimate	95% Confidence interval	
					Lower	Upper
Pair 1	PRE-TEST-POST TEST	Cohen's d	1.32288	-1.039	-1.892	-.143
		Hedges' correlation	1.48938	-.923	-1.680	-1.27

Source: *Authors*

the second draft's scores suggests that peer assessment provided valuable feedback, aligning with research highlighting its effectiveness. The use of Google Docs as a technology platform may have contributed to the process's effectiveness. Individual differences were observed in participant improvement, consistent with previous studies, but limitations in sample size affect the generalizability of the results. The small sample size also impacts the normal distribution of data, which is acknowledged as a challenge in the research.

4.1 Comparing the results of each criterion

The study explored the effects of peer assessment on task achievement scores between the control and experimental groups. The experimental group (8 participants) had an average score of 6.00 (SD = 1.77, SEM = 0.63), while the control group (15 participants) had a lower mean score of 4.13 (SD = 1.25, SEM = 0.32). Levene's Test showed unequal variances, leading to the use of Welch's t-test. The t-value was 2.95, indicating a significant difference between groups. The experimental group had higher task achievement scores, but lower than the control group. The difference highlights the potential impact of teaching strategies. Further investigation into the intervention's specific elements and pedagogical approaches could provide valuable insights.

The study assessed coherence and cohesion scores for the control and experimental groups. The experimental group (8 participants) had a mean score of 5.75 (SD = 1.75, SEM = 0.62), while the control group (15 participants) had a mean score of 4.33 (SD = 1.11, SEM = 0.29). The t-values of 2.38 and 2.07, with adjusted degrees of freedom of 10.10, highlight challenges in improving these aspects of writing through the intervention. Welch's t-test, due to unequal variances, showed values of 2.38 and 2.07 for coherence and cohesion scores, respectively. This suggests different impacts of instructional strategies on students, reflecting diverse learning styles, competencies, or engagement levels.

The experimental group has a mean score of 5.13 (SD=1.64) indicating variability in scores. The larger control group reported a lower mean score of 4.20 (SD=1.08), suggesting less variability. The t-values reported are 1.63 and 1.44 with adjusted df of 10.34. Assuming the first t-value (1.63) is relevant, there is a difference in mean scores with the control group having higher scores. However, the t-value may not be statistically significant (p < .05).

The experimental group consisted of 8 samples with a mean score of 5.13, indicating moderate grammatical proficiency. The control group had 15 samples with a mean score of 3.87, showing less variability. A t-test with

Table 9. Independent sample test for both groups based on Task achievement scores

T-TEST /VARIABLES= Grammatical
/GROUPS=group (1.2)/MISSING=ANALYSIS
/CRITERIA=CI (0.00)

Group Statistics

	Group	N	Mean	Std. Deviation	S.E Mean
Task Achievement	"EG"	8	6.00	1.77	.63
	"CG "	15	4.13	1.25	.32

Independent Sample Test

		Levene's Test for Equality of Variances		T-Test for Equality of Means					95% Confidence Interval of the Differences	
		F	Sig	T	df	Sig.(2-talled)	Mean Difference	St. Error Difference	Lower	Upper
Task Achievement	Equal variances assumed	.00	.960	2.95	21.00	.008	1.87	.63	.55	3.18
	Equal variances not assumed			2.65	10.80	.023	1.87	.70	.31	3.42

Source: *Authors*

Table 10. Independent sample test for both groups based on Coherence and cohesion scores

T-TEST /VARIABLES= Grammatical
/GROUPS=group (1.2)/MISSING=ANALYSIS
/CRITERIA=CI (0.00)

Group Statistics

	Group	N	Mean	Std. Deviation	S.E Mean
Coherence and Cohesion	"EG"	8	5.75	1.75	.62
	"CG "	15	4.33	1.11	.29

Independent Sample Test

		Levene's Test for Equality of Variances		T-Test for Equality of Means					95% Confidence Interval of the Differences	
		F	Sig	T	df	Sig. (2-talled)	Mean Difference	St. Error Difference	Lower	Upper
Coherence and Cohesion	Equal variances assumed	.36	.554	2.38	21.00	.027	1.42	.60	.55	2.65
	Equal variances not assumed			2.07	10.10	.065	1.42	.68	-.10	2.94

Source: *Authors*

adjusted degrees of freedom suggested a significant difference in grammatical range and accuracy between the two groups, with the experimental group performing better. Individual differences influenced proficiency, but overall, the control group outperformed the experimental group. The experimental group achieved higher scores in all criteria compared to the control group. The task-based approach used in the study was successful in improving language proficiency, particularly in task achievement.

The experimental group scored higher than the control group, suggesting success in promoting coherence and cohesion in writing. Previous studies support the effectiveness of task-based language teaching (Ellis,

Table 11. Independent sample test for both groups based on Lexical resources scores

T-TEST /VARIABLES= Lexical Resources
/GROUPS=group (1.2)/MISSING=ANALYSIS
/CRITERIA=CI (0.95)

Group Statistics

	Group	N	Mean	Std. Deviation	S.E Mean
Lexical Resources	EG	8	5.13	1.64	.58
	CG	15	4.20	1.08	.28

Independent Sample Test

		Levene's Test for Equality of Variances		T-Test for Equality of Means					95% Confidence Interval of the Differences	
		F	Sig	t	df	Sig. (2-talled)	Mean Difference	St. Error Difference	Lower	Upper
Lexical Resources	Equal variances assumed	.56	.464	1.63	21.00	.118	.92	.57	-.25	2.10
	Equal variances not assumed			1.44	10.34	.181	.92	.64	-.50	2.35

Source: *Authors*

Table 12. Independent sample test for both groups based on Grammar ranges and accuracy scores

T-TEST /VARIABLES= Grammatical
/GROUPS=group (1.2)/MISSING=ANALYSIS
/CRITERIA=CI (0.95)

Group Statistics

	Group	N	Mean	Std. Deviation	S.E Mean
Grammatica Range and accuracy	"EG"	8	5.13	1.64	.58
	"CG"	15	3.87	1.06	.27

Independent Sample Test

		Levene's Test for Equality of Variances		T-Test for Equality of Means					95% Confidence Interval of the Differences	
		F	Sig	T	df	Sig. (2-talled)	Mean Difference	St. Error Difference	Lower	Upper
Grammatical Range and Accuracy	Equal variances assumed	.94	.344	2.24	21.00	.036	1.26	.56	.09	2.43
	Equal variances not assumed			1.96	10.21	.078	1.26	.64	-.17	2.68

Source: *Authors*

2003; Skehan, 1998). Moreover, regarding coherence and cohesion, the experimental group also outperformed the control group with an average score of 5.71 compared to 4.38. This suggests that the experimental group was better able to organize their ideas and convey them in a clear and logical manner, with appropriate use of transitional devices and cohesive ties. This finding aligns with various research studies that has emphasized the importance of coherence and cohesion in second language writing (Halliday & Hasan, 1976; Hyland, 2003).

Overall, these findings support the importance of task achievement, coherence and cohesion, lexical resources, and grammatical range and accuracy in assessing second language writing proficiency. They also indicate that task-based approaches and collaborative learning improve performance. The experimental group scored higher in

Table 13. The students' score of each criterion of the experimental and control group

No.	Group*	Task achievement	Coherence &cohesion	lexical resources	Grammatical range and accuracy
1.	EG	6.00	6.00	5.00	5.00
2.	EG	6.00	5.00	4.00	4.00
3.	EG	2.00	2.00	2.00	2.00
4..	EG	7.00	6.00	7.00	7.00
5.	EG	6.00	6.00	5.00	5.00
6.	EG	8.00	8.00	7.00	7.00
7.	EG	7.00	7.00	6.00	6.00
8.	EG	6.00	6.00	5.00	5.00
9.	CG	4.00	5.00	5.00	4.00
10.	CG	3.00	2.00	3.00	3.00
11.	CG	3.00	4.00	3.00	3.00
12.	CG	3.00	4.00	3.00	3.00
13.	CG	2.00	3.00	4.00	3.00
14.	CG	6.00	6.00	6.00	6.00
15.	CG	3.00	3.00	3.00	3.00
16.	CG	4.00	4.00	3.00	4.00
17.	CG	5.00	5.00	5.00	3.00
18.	CG	5.00	5.00	4.00	4.00
19.	CG	4.00	5.00	5.00	4.00
20.	CG	4.00	4.00	4.00	3.00
21.	CG	6.00	6.00	6.00	6.00
22.	CG	4.00	4.00	4.00	4.00
23.	CG	6.00	5.00	5.00	5.00

*Source: *Authors*

grammatical range and accuracy, suggesting success in promoting grammatical development. Previous studies support the effectiveness of task-based language teaching (Ellis, 2003; Skehan, 1998). Peer assessment enhances students' writing skills by promoting critical thinking, self-assessment, and feedback (Li & Li, 2017). It improves capability to identify and rectify errors and understanding of the writing process (Cho & Schunn, 2007). Peer assessment also enhances motivation and involvement in the writing process by facilitating feedback reception and collaborative learning (Cheng & Warren, 2005).

5. CONCLUSION

Peer assessment with Google Docs was explored as a method to enhance writing skills for Omani grade ten students. The study aimed to determine the effectiveness of peer assessment, specifically using Google Docs, in improving writing performance. The researcher assessed the impact on writing skills and the quality of students' work.

The findings indicate that peer assessment has a positive effect on students' writing performance. Using technology like Google Docs can enhance the efficacy of peer assessment by offering a collaborative platform for feedback. The study acknowledged limitations in

sample size and the lack of investigation into long-term effects.

The present study has some limitations, including a small sample size and no investigation into long-term effects. However, it supports the use of peer assessment with Google Docs to enhance writing skills. Overall, the study adds to the existing literature on peer assessment and emphasizes the advantages of technology in this process.

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Competing interests

The authors declare that they have no competing interests.

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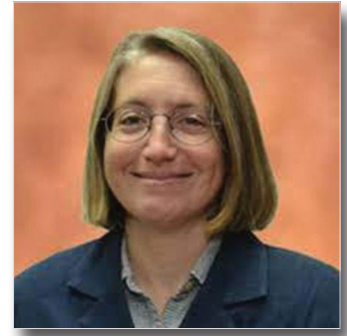
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Women's Entrepreneurship Development in Bangladesh: A Gender Perspective

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ABSTRACT

Background: Entrepreneurs play a pivotal role in driving a country's socio-economic progress. Globally, over 400 million individuals are engaged in entrepreneurship; however, women's participation remains notably lower than men. This research centres on women's entrepreneurship development in Bangladesh, examining it through a gender lens. *Methods*: Employing a qualitative approach and literature review methodology, we analyzed more than 50 pertinent studies on gender and entrepreneurship. Four central research questions guided our investigation: what methodologies and findings characterize previous studies on gender and entrepreneurship? What are the primary drivers and challenges in women's entrepreneurship development? How do societal gender constructions influence women's entrepreneurial decisions? What future directions can be projected for gender and entrepreneurship research? *Results*: Women entrepreneurs in Bangladesh encounter multifaceted challenges across various phases of entrepreneurship, encompassing access to business capital, finance, education, ICTs, markets, infrastructure, and transportation. Our analysis indicates that societal gender constructs significantly influence women's entrepreneurial choices. Furthermore, entrenched gender stereotypes impede sustainable entrepreneurship development, especially among women. *Conclusion*: Addressing the challenges faced by women entrepreneurs in Bangladesh requires a multifaceted approach that challenges traditional gender norms and fosters an enabling environment for women's entrepreneurial endeavours.

KEYWORDS: gender; entrepreneurship; women; development.

1. INTRODUCTION

Entrepreneurship which is known to play a crucial role in economic development all over the world, is usually considered a male-dominated activity (De Vita et al., 2014).). Evidence shows that even in 2022, women are less likely to start an entrepreneurial activity compared to men (Dheer et al., 2019; GEM, 2023). However, the gender difference in entrepreneurship development varies across countries of the world based on the perceived gender roles and the stereotypical entrepreneurial behaviour in the different country contexts (Rubio-Banón & Esteban-Lloret, 2016). Dheer et al. (2019) found that socio-cultural dimensions of a country play a crucial role in the likelihood of starting an entrepreneurship for men and women. In addition to these, gender roles and gender stereotypical beliefs, which are deep-seated in society, influence men and women differently in perceiving their potential to pursue entrepreneurship.

According to UNICEF (2017), gender is a social construction which distinguishes men and women in

terms of different social and cultural attributes and thus assigns roles and responsibilities differently for men and women in society. Gender norms are identified as the attributes and characteristics of men and women based on their gender. Gender norms are defined as the accepted attributes and characteristics of male and female gendered identity at a particular point in time for a specific society or community. They are the standards and expectations to which gender identity generally conforms, within a range that defines a particular society, culture and community at that point in time. Internalized early in life, gender norms can establish a life cycle of gender socialization and stereotyping (UNICEF, 2017, p. 2). Therefore, gender norms are social rules and expectations of how men and women should behave, interact and express themselves in society and their relationships based on their gender.

Gender-specific roles are often conditioned by household structure, access to resources, specific impacts of the global economy, the occurrence of conflict or disaster and other locally relevant factors such as ecological conditions (UNICEF, 2017, p. 2). Therefore, gender roles are perceived responsibilities, attitudes and attributes of men and women in society. Gender roles play a crucial role in determining men and women's status and position in society and shaping their behaviour and responsibilities accordingly.

Gender roles perpetuate and contribute to gender inequality. Gender inequality occurs when people face discrimination and less opportunity because of their gender identity. Therefore, when gender inequality exists in society, it produces multi-dimensional outcomes for different genders in society. Gender inequality takes many forms based on society's broad social and economic structure. It is usually women who face more gender inequality in terms of access to resources, access to education and training, access to finance and markets, access to Information Communication Technologies (ICTs), access to transportation and communication, etc. compared to their male counterparts. The three key concepts of the study, i.e., gender norms, gender roles and gender inequality, has been provided in Table 1.

De Vita et al. (2014) found that in entrepreneurship research, the gender perspective that emerged in the 1970s and the earlier studies on gender and entrepreneurship were much more focused on the characteristics of women entrepreneurs with respect to developed countries (De Vita et al., 2014). The earlier research mostly focused on individual traits, which claimed that starting an entrepreneurial venture mostly depends on the different traits of an individual, which requires looking beyond the individual-centric point of view and emphasizing the broad gender perspective which exists in society. Gender roles are crucial in determining men's and women's positions in society, which allows men to gain advantages over women in society, and men are seen as ideal in the labour market compared to women and perceive women as secondary labour in the labour market (Rubio-Banón & Esteban-Lloret, 2016). Therefore, a gender hierarchy is seen in the labour market, where men are considered the standard and women are seen as exceptions to the rule. The entrepreneurship sector is also considered a rational sector where business occurs, and men are seen as perfect and women are seen as emotional and are considered to be associated with domestic boundaries. Thus, gender divides men and women in entrepreneurship in terms of their perceived gender role in society as a whole.

Previous studies mostly focused on the perspective of developed countries; however, women's entrepreneurship in the context of developing countries is less studied. This study focuses on the context of a developing country, Bangladesh, from a gender point of view. Chatterjee and Ramu (2018) argued that lower participation of women in entrepreneurship has a higher socio-economic implication in developing countries. For instance, there is a significant gender gap in terms of men and women parity in entrepreneurship activities in an emerging economic country like India. There are some crucial factors that are responsible for the lower participation of women in entrepreneurial activities. For instance, factors like lack of access to resources, which include less access to capital, knowledge and education. Moreover, gender-based socio-cultural constraints,

Table 1 Gender roles, gender norms and gender inequality as the key concepts

Gender norms	Gender norms are the accepted attributes and characteristics of being a woman or a man (ideas of how men and women should be and act) at a particular point in time for a specific society or community. They are internalized early in life through the process of gender socialization, are used as standards and expectations to which women and men should conform, and result in gender stereotypes
Gender roles	Gender roles are social and behavioural norms that, within a specific culture, are widely considered to be socially appropriate for individuals of a specific sex. These often determine differences in the responsibilities and tasks assigned to women, men, girls and boys within and outside the private sphere of their household
Gender inequality	The disparities between women and men in a society in terms of their access and opportunities in the social, economic, and political spheres and their share in decision-making power at all social levels

Source: *Retrieved from: UNICEF (2017) Glossary of terms - Integrating a Gender Perspective into Statistics - UN Statistics and Gender inequality | INEE.*

less access to markets, insufficient access to supportive networks and mentorship, and a lack of access to ICTs limit women's fullest participation in entrepreneurship. In the context of migratory movements, women often either remain in their place of origin or accompany the primary breadwinners of their families (Sarkar, 2024).

Women entrepreneurship has become a growing field of study nowadays (Rosca et al., 2020). Women entrepreneurship has been studied in different countries in different dimensions. Social dimensions were added to the discussion of early entrepreneurship research. Some scholars have identified entrepreneurship as a social process. Societal and cultural dimensions play a great role in shaping entrepreneurship behaviour in different country contexts. Thus, entrepreneurship is discussed as an issue which is more contextual than concrete. Yadav and Unni (2016) studied women entrepreneurship and argued that previous studies on entrepreneurship mostly focused on behavioural perspectives. Gender in business was discussed with social behavioural theories previously focusing on gender differences in business ownership and entrepreneurship development. In those studies, entrepreneurship is primarily considered a male-dominating business activity and women have less access to business because of their lower participation in economic activities. Moreover, women possess less ownership of entrepreneurship compared to their male counterparts. Yadav and Unni (2016) found that the first review paper on women entrepreneurship was first published in 1986, which highlighted the career perspective of women, which is termed career theory, focusing on the determinants of entrepreneurial behaviour of women. However, they argued that there is still a lack of theoretical basis for women entrepreneurship research.

Welter et al. (2014) argued that entrepreneurial behaviour is gendered in terms of the places where it occurs. Gender norms force women into different industries and different entrepreneurial activities. Gender norms are social rules and expectations of how men and women should behave, interact, and express themselves in society and their relationships based on their gender. Gender norms are contextual and differ across countries in terms of time and place. Gender norms can limit people's choices, opportunities and prospects in different socio-economic dimensions.

The emergence of the concept of entrepreneurship has been powerful in the last few decades. Entrepreneurship is a dynamic process by which a new venture is created, and entrepreneurs are called agents of change who generate new employment opportunities. Entrepreneurship is recognized as the engine of the economies of nations. Entrepreneurship is considered a vehicle of economic development in a country where women's entrepreneurship is termed an engine for economic growth, especially for the developing countries of the world (De Vita et al., 2014). Entrepreneurship is a dynamic process by which a new venture is created, and entrepreneurs are called agents of change who generate new opportunities for employment. Over the last few years, the study of entrepreneurship has increased mainly for two reasons (Alberti et al., 2004). First, entrepreneurship can benefit the economy at the macro level and second, it also helps satisfy personal achievement at the micro level i.e., men and women. However, to what extent it is different remains questionable. Thus, the field of entrepreneurship developed into a scholarly field. Second, the demand for the entrepreneurship faculty has increased in the last decade. The study of entrepreneurship has gained importance in terms of what makes an entrepreneur and how these characteristics may best be imparted.

Entrepreneurship development is a solution for mitigating the challenges of the growing number of unemployed people in developing countries. The social, economic, cultural and religious factors of a country play a great role in the development and growth of entrepreneurship. The concept of entrepreneurship development can be defined as the process of expanding the knowledge and skills of individuals through capacity-building programs. Entrepreneurship development aims to enhance economic development through employment generation. In the 1990s, women were seen as more visible in entrepreneurial and political activities (Bullough et al., 2021). However, the participation of women in entrepreneurship is still limited compared to men. The contributions of women entrepreneurs are important for a country's economic growth and development. Women entrepreneurs can contribute to the socio-economic development of a country, whereas the nuances of women entrepreneurs are yet to be studied.

Efforts have been made to study women's entrepreneurship, especially with regard to developing countries. For instance, in the study of women's entrepreneurship from the perspective of developing countries perspective: there are four major phases of women's entrepreneurship development (Minnitia & Naude, 2010), namely the conception phase, gestation phase, infancy phase, and mature phase. In the phase of conception, women tend to seek opportunities for entrepreneurship. These are mostly called latent entrepreneurs. The gestation phase is when the opportunity is turned into a decision based on the evaluation process. In this phase, a woman makes a

decision to start a business as a choice of occupation. In the phase of start-up (infancy), the venture is created and starts its operation. Lastly, during the phase of growth (mature), a new venture becomes established as a firm and is able to survive.

Moreover, past studies have highlighted a lack of theoretical foundation for women entrepreneurship research. For instance, De Vita et al. (2014) studied women entrepreneurs from developing countries and argued that entrepreneurship is an activity which is more dominated by men; however, they found that there is an existing gap in the systematization in terms of theoretical and empirical studies on gender and entrepreneurship. Dheer et al. (2019) studied the gender gap in entrepreneurship research and found that though women are contributing towards countries economic growth, women are less likely to start entrepreneurship, and thus there is a gender gap in this field. However, the gender differences are not the same in the different countries; rather, they vary across the countries. They have argued that environmental factors play a crucial role in entrepreneurship development and they have argued for an integrative approach to studying gender and entrepreneurship.

Simba et al. (2023) studied community financing in entrepreneurship and identified gender bias in promoting business in the financial markets. In addition to these, in terms of the internationalization of entrepreneurship, men are predominant compared to women. Men show more willingness to have the status of internationalization of their business venture compared to women entrepreneurs (Rosado-Cubero et al., 2024). There are some countries where women cannot own land and there is also evidence that women who can be involved in entrepreneurial activities have to deal with both work and family responsibilities, which are gendered in nature. It creates double responsibilities for women. For organizational factors, there are some organizations that are involved in the entrepreneurship ecosystem, which include professional, legal, networking and consulting companies. Gender can be manifested differently for men and women by these organizations.

Brush et al. (2019) argued that individual level, institutional level and organizational level factors play a crucial role in the entrepreneurship ecosystem. At an individual level, an entrepreneur is called the main catalyst of entrepreneurship. Individual's perceptions of gender norms, gender roles, etc. play a crucial role in the overall entrepreneurship ecosystem. Other individuals, like mentors, investors and advisors, also contribute to shaping the entrepreneurial ecosystem. For institutional level factors include three types of institutions, i.e., cognitive, normative and regulatory. Cognitive institutions

are mostly cultural-cognitive which shapes the 'taken for granted' or cognitive legitimacy of entrepreneurship. Normative institutions comprise perceived gender norms, gender roles, etc. For instance, many societies perceive that woman should not choose entrepreneurship as a career but rather focus on household chores.

Gender norms and gender roles have been discussed in many of the past studies. For instance, the traditional gender norm of men dealing outside and women dealing inside impacts entrepreneurship development (Cheng & Sheng, 2023; Rubio-Banón & Esteban-Lloret, 2016). Past studies on gender and entrepreneurship have also focused on gender inequality in terms of access to resources. Researchers found a gender gap in entrepreneurship development due to a lack of different opportunities for women, which leads to gender inequality. For instance, in terms of access to finance, i.e., funding the enterprises, the participation of women is comparatively low. In terms of funding for the business venture, women are less likely to secure external funding compared to men (Guzman & Kacperczyk, 2019).

However, gender in entrepreneurship research is found to be underexplored in different contexts (Rosca et al., 2020). In previous research on entrepreneurship, the social perspective of entrepreneurship development has gained attention from scholars. Earlier, entrepreneurship was considered a social phenomenon. Progress has been made on entrepreneurship research and social perspective over the past years. Davidsson (2003) discussed entrepreneurship as a social phenomenon where an entrepreneur functions in a society. This view argues that, as a social phenomenon, entrepreneurship consists of competitive behaviors that drive the market process for ensuring the proper utilization of resources.

This research primarily focuses on previous studies on gender and entrepreneurship development worldwide and the major findings of those studies. For more specification, further focus has been given on the context of a developing country, i.e., Bangladesh. Bangladesh is a country in South Asia with a small land area and a large population. According to the Bangladesh Bureau of Statistics (2022), currently 25.93 million of the labour force are women out of 73.41 million in total; however, women are less visible in the country's economic sector in Bangladesh (Bangladesh Bureau of Statistics, 2022). The causes of the lack of visibility of women in the economic sector need to be explored. Thus, this study also examines the factors influencing women's entrepreneurship development in Bangladesh. De Vita et al. (2014) argued that the role of women entrepreneurs in developing countries has been challenging since 2000. In addition, this study sheds light on how women

entrepreneurs are encountering challenges in the context of Bangladesh and what needs to be focused on in the future.

2. MATERIALS AND METHODS

2.1 Data Collection

This study relies on secondary data sources, primarily gathered from the Google Scholar site and ScienceDirect. A theme-based qualitative data analysis tool is used to analyze the data to address the research questions stated above. Academic papers, i.e., journal papers, book chapters and published reports on gender and entrepreneurship research, are incorporated for this study. The keywords in the search are gender and entrepreneurship, women and entrepreneurship. To focus on the current debate and current body of knowledge on gender and entrepreneurship, the study emphasizes and incorporates (but is not limited to) the studies that have been mostly published in the last 10 years, i.e., 2014 to 2023. More than 50 previous research studies, selected based on criteria emphasizing a gender perspective in entrepreneurship development, were reviewed and incorporated into this study, revealing their relevance to women entrepreneurship development, particularly within developing countries like Bangladesh.

3. RESULTS

3.1 Gender Norms and Entrepreneurship

The previous studies focused only on the fact that entrepreneurship is primarily a male-dominating activity all over the world (De Vita et al., 2014). Men are more likely to start an entrepreneurial activity compared to women. Therefore, gender differences in entrepreneurship development are high but vary from country to country. The fewer women who participate in entrepreneurship, the greater the impact it has on the economy. However, Brush et al. (2019) argued that women are less studied in terms of entrepreneurship development. Therefore, gender is unexplored in terms of entrepreneurship development (Rosca et al., 2020). However, gender is crucial in entrepreneurship development, where men are considered active and women are considered passive in the labour market. Entrepreneurship is considered an activity outside of the home boundary, where women have traditionally lacked access.

3.2 Gender Roles and Entrepreneurship

Gender roles are a dominant factor in terms of entrepreneurship development (Rubio-Banón & Esteban-Lloret, 2016). Men are more likely to shoulder the roles and responsibilities of breadwinners for a family all over the world compared to women. Men are risk-taking, women prefer less risk-taking behaviour. Furthermore,

men show a dominating attitude towards women. Brush et al. (2019) argued that the masculine behaviour of entrepreneurship includes boldness, ambition, risk-taking etc. Therefore, when it comes to entrepreneurship, we find that women are less likely to be involved with generating new ideas and taking risks in terms of social and economic dimensions. Gender roles are a dominant factor in terms of entrepreneurship development (Rubio-Banón & Esteban-Lloret, 2016). Men are more likely to shoulder the roles and responsibilities of breadwinners for a family all over the world compared to women. In addition, men are risk takers while women prefer less risk-taking behaviour. Furthermore, men show a dominating attitude towards women. Brush et al. (2019) argued that the masculine behaviour of entrepreneurship includes boldness, ambition, risk taking etc. Therefore, when it comes to entrepreneurship, women are less likely to be involved with generating new ideas and taking risks in terms of social and economic dimensions.

3.3 Gender Inequality and Entrepreneurship

Gender inequality is a crucial issue in terms of the formalization of entrepreneurship. Babbitt et al. (2015) studied gender and entrepreneurship based on formal-informal dilemmas and found that women possess nuanced preferences for formalization of their entrepreneurship, which are conditional on different factors. Women lack proper support and access to different opportunities and limited access also limits their ability to formalize their entrepreneurial activity. The gender gap persists in terms of entrepreneurship development. Markussen and Røed (2017) stated that women are underrepresented in entrepreneurship and that the gender gap is persistent. There are strong gendered peer effects on entrepreneurship development. Men are influenced by men and women are influenced by women in terms of taking entrepreneurship as a future career.

Gender inequality is persistent in entrepreneurship development. Women are less likely to become entrepreneurs than men. Moreover, women are less likely to outperform when an entrepreneurship is even formed. For instance, women are less likely to find external capital from potential investors. 63% of women-led entrepreneurs are less likely to get venture capital from investors (Guzman & Kacperczyk, 2019). Thus, they have found a well-established gender gap in entrepreneurship in terms of obtaining external funding, i.e., venture capital. Brush et al. (2019) argued that there is a gap in venture capital funding rates between women and men-owned entrepreneurship. Moreover, investors are less likely to invest in women-led entrepreneurship. The cultural beliefs and negative gender stereotypes about

women-led entrepreneurship stimulate those investors to be less likely to invest in women-led ventures.

The case of access to resources is more severe for those women who live in rural areas. It is evident that the financial status of rural women is not the same as that of urban women. Sharma et al. (2012) found that rural women's economic status is extremely poor in developing countries like India. In the case of Bangladesh, the issue is similar. Rural women merely have access to resources for developing entrepreneurship. Moreover, rural women rarely find time for entrepreneurship development alongside their responsibilities in agricultural production, household activities, and reproductive roles, which is a bit different from those who are living in urban areas in Bangladesh.

4. DISCUSSION

Entrepreneurship development is a solution for mitigating the challenges of the growing number of unemployed people in developing countries. The social, economic, cultural and religious factors of a country play a great role in the development and growth of entrepreneurship, especially for women. By developing entrepreneurship, women contribute to the national economy and the development of a country. A developing country like Bangladesh is not an exception, where half of the total population of Bangladesh is women. Women's participation in economic development is important for Bangladesh. Currently, both urban and rural women are trying to be more visible in the economic sector, i.e., business activity, compared to the past decades. Mujeri (2019) argued that due to the patriarchal system prevailing in society, women tend to face more discrimination in terms of entrepreneurship development in Bangladesh compared to their male counterparts. Amin and Sogra (2013) found that there are 40% of women entrepreneurs in Bangladesh who think that social barriers exist which hinder women from being entrepreneurs.

Our findings revealed that there has been a rising trend of women entrepreneurship in developing countries like Bangladesh. Women's self-motivation plays an important role for women entrepreneurs. Women can be self-motivated and also be motivated by others, i.e., by their family members, to start a venture. Amin and Sogra (2013) found that financial solvency is one of the biggest factors for women entrepreneurs in general. Urban women tend to be self-dependent and want to pass leisure time by doing something as a source of income. Desire for being a financially independent person and self-fulfilment, i.e., participation in decision making is one of the main factors for women to be entrepreneurs.

Both the push and pull factors are contributing towards entrepreneurship development among rural women in Bangladesh (Rahman et al., 2022). Women are supposed to be contributing towards reducing rural poverty by involving and initiating enterprises at the local level. Thus, in rural areas, women can contribute to the development of entrepreneurship, which can enhance the local capabilities of economic growth. There are two driving forces for rural women entrepreneurs, as found by Rahman et al. (2022). First, the desire to become a self-reliant individual and second, the desire to increase the income of the family.

The other factors found to be associated are availability of capital, sense of responsibility for children, level of knowledge and skills. However, in the case of women entrepreneurship development, religion does not influence it (Hossain et al., 2009). This finding contradicts the notion of Tambunan (2011), who mentioned that religion is one of the strongest factors in the development of entrepreneurs, especially women. Religious norms and beliefs play a crucial role in the development of women entrepreneurship, especially in rural areas. We also found that in rural areas where there is a smooth connection between transportation and communication with urban centres, women tend to be more interested in developing new business ideas (Tambunan, 2011). Therefore, access to transportation and communication is another driving factor.

Women's age, education status, level of awareness, and motivation to work play a crucial role in women's decision to be entrepreneurs at an individual level. However, due to a lack of education, knowledge, awareness, and motivation, women tend not to participate in market-based entrepreneurship in Bangladesh. Moreover, women own and control fewer resources and are merely allowed to take decisions regarding the asset management of a family. Due to the limited resources, women cannot accumulate capital for a start-up. In addition to these, due to the lack of access to the capacity-building initiative, women entrepreneurs face challenges in the different phases of entrepreneurship development in Bangladesh. The absence of women in the training and capacity-building program leads women to face more challenges compared to their male counterparts.

Angulo-Guerrero et al. (2024) found that there is a close connection between countries' labour policies and entrepreneurial activities. Though labour flexibility is closely related to women entrepreneurship economies of developing countries, those economies are mostly flexible for early-stage women entrepreneurship development. Welter et al. (2014) found that the agency of women entrepreneurs was also affected by spatial and institutional factors. Thus, all these factors together contribute to women entrepreneurship development from a developing country perspective. Similarly,

Neumann (2020) found that entrepreneurs' social and cultural background and motivation are crucial factors in entrepreneurship development. These factors of entrepreneurship development impact the broad social, economic, and welfare of a country. According to Nguyen (2021), women-owned enterprises benefit and perform better from collective social norms, actions, and non-finance-related factors at the national level.

Taking all these points into consideration, it can be deduced that the major driving factors can be categorized into three levels, i.e., individual level, social level, and national level factors. Individual-level factors include women's self-capabilities, motivation, knowledge, education, awareness, etc. Social level factors include gender norms, gender roles, social structure, and religion. National-level factors include national policies, plans, and governmental regulations on entrepreneurship development. However, the most crucial factor is gender in terms of women entrepreneurship development in Bangladesh.

5. CONCLUSION

Our study found that the earlier research on entrepreneurship was based on different approaches, i.e., trait approaches, career approaches and behavioural approaches. Those studies tried to analyze entrepreneurship from different dimensions, including social and behavioural dimensions. In addition, we found that gender norms are crucial in the case of entrepreneurship development. Due to gender stereotypes in all stages of entrepreneurship development, women tend to show less interest in terms of entrepreneurship development compared to men. Thus, women are less likely to start new ventures and are seen as less participative in entrepreneurship development. Religious superstitions also hinder women from starting and continuing a venture that requires involving men.

Women entrepreneurship development is contextual, and there are no measures which can be a common fit for all societies around the world. The development of women entrepreneurship in urban and rural areas is different and the challenges urban and rural women face are also different. Therefore, the policy should be different in order to come up with a solution to address those challenges differently in urban and rural contexts. Future research should focus on more comparative studies in different contexts, including transnational boundaries.

Declaration of Conflicting Interests

No potential conflict of interest was reported by the authors. This article is the sole work of the authors and has not been presented or published elsewhere.

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Mapping Bureaucratization of Religion in Southeast Asia: Historical Trends and Contemporary Implications

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ABSTRACT

Introduction: The bureaucratization of religion represents a significant and often underexplored dimension of governance in Southeast Asia. This study delves into the administrative regulation of religious practices and institutions in Indonesia, Malaysia, Singapore, and Thailand, as highlighted in the September 2023 United States Commission on International Religious Freedom (USCIRF) report. By focusing on these countries, the paper aims to elucidate the broader implications of bureaucratization on freedom of religion and belief (FoRB). **Methods**: A qualitative research methodology was employed, involving a critical review of the September 2023 USCIRF report and other relevant literature. The study analyzed governmental policies, administrative measures, and their impact on religious practices and FoRB. Comparative analysis across the four countries was conducted to identify common patterns and unique deviations in the bureaucratization process. **Results**: The study found that the bureaucratization of religion in Indonesia, Malaysia, Singapore, and Thailand is characterized by intricate administrative controls over religious institutions and practices. Key features include registration requirements, restrictions on religious gatherings, and monitoring of religious discourse. These measures, while varying in form and intensity across the countries, collectively impose significant limitations on FoRB. The analysis revealed that these administrative controls are strategically employed by governments to regulate religious expression and maintain socio-political stability. **Discussion**: The findings underscore a substantial threat posed by the bureaucratization of religion to FoRB and related human rights. The nuanced use of administrative measures enables governments to subtly control and restrict religious practices without overtly violating international norms. This regulatory approach not only curtails individual freedoms but also affects the overall religious landscape, influencing cultural diversity and inter-religious relations. The study enhances the understanding of the complex interplay between religion and state, highlighting the need for more robust mechanisms to protect FoRB in the region. **Conclusion**: The bureaucratization of religion in Southeast Asia presents a profound challenge to FoRB. By critically examining the practices in Indonesia, Malaysia, Singapore, and Thailand, this study provides valuable insights into the administrative strategies used to control religious discourse. The research underscores the importance of addressing these issues to safeguard religious freedoms and promote a more inclusive and respectful religious landscape in Southeast Asia.

1. INTRODUCTION

Religious freedom is a growing concern worldwide, the United States and more recently, Canada, have enacted laws emphasizing religious freedom as a primary goal of their foreign policies. Multiple international treaties also protect it. In fact, about 90 percent of countries include religious freedom in their constitutions (Fox, 2015, 2016). In this paper, we assess 'The Bureaucratisation of Religion in Southeast Asia.' To do this, we rely on 'The United States Commission on International Religious Freedom (USCIRF'S) report issued in September 2023.' The USCIRF'S issues reports to provide assessments and recommendations on the state of religious freedom worldwide, aiming to promote and protect religious liberties for all people. These reports help guide U.S. foreign policy and draw attention to issues of religious freedom and human rights on a global scale. Our inquiry commences with an examination of the multifaceted definitions and perspectives surrounding religious freedom, encompassing interpretations that span from individual autonomy to societal responsibilities. This foundational exploration aims to establish a nuanced comprehension of the concept. Subsequently, we examine the impact of bureaucratic frameworks on religious freedom in Southeast Asia. This investigation seeks to elucidate how these administrative structures may either constrain or facilitate the ability of religious communities to freely practice and express their beliefs. Utilizing a qualitative methodology, specifically qualitative content analysis, this study endeavours to offer a thorough investigation of these dynamics, illuminating the complex interplay between state regulations, religious autonomy, and societal inclusivity within the region.

1.1 What Is Religious Freedom?

The term 'religious freedom' is subject to considerable interpretation and is often used interchangeably with 'religious rights,' 'religious tolerance,' and 'religious equality' (Fredman, 2020). Violations of religious freedom are labelled as 'religious discrimination,' 'religious persecution,' or 'religious intolerance,' but there is no universal agreement on their definitions (Boyle & Sheen, 2013). For instance, the 1998 US International Religious Freedom Act and its subsequent State Department reports frequently use the term 'religious freedom' without offering a precise definition, contributing to the lack of clarity in these discussions (Fox, 2016). Efforts to define religious freedom generally fall into three categories with implications for government actions. The first considers whether the government can restrict the activities of all religions, including the majority one. The second questions whether it is acceptable

for the government to limit minority religions without imposing similar restrictions on the majority. The third category involves government support for a specific religion. These definitions guide the spectrum of actions that governments may be restricted or mandated to undertake in safeguarding religious freedom.

Government actions toward religious restrictions can vary significantly. In one scenario, as seen in North Korea or the former Soviet Union, the government imposes broad limitations on all religions, displaying hostility towards religious practices in general (Fox, 2016). Alternatively, in another case, a government may favour certain religions it deems legitimate, resulting in restrictions primarily affecting minority religions. The distinction lies in the target of the government's restrictions, either impacting all religions universally or selectively focusing on specific minority groups (Fox, 2016). Additionally, government support for religion, while seemingly benign initially, can be pivotal in shaping the landscape of religious freedom, influencing who ultimately enjoys such freedoms.

In the first category of definitions for religious freedom, it is all about non-interference. According to this type, the best way to protect religious freedom is by having the government stay completely out of religious matters (Madan, 2003). An example of this is the U.S. concept of religious freedom. The U.S. Constitution states, 'Congress shall make no law respecting an establishment of religion or prohibiting the free exercise thereof (United States, 1791; Conkle, 2009).' This has often been understood to mean that the government should not support any religious organizations and should not impose any restrictions on religion unless there is a very strong reason to do so. For instance, a cult that includes human sacrifice as a ritual would not be allowed to carry out this practice because the government has a very strong reason to prevent murder (Fox, 2016). Some argue that this idea of religious freedom, which keeps government separate from religion and does not provide government support, can be seen as discriminatory against all religions (Bielefeldt, 2013). When government or government support excludes religion, it may be perceived as giving preference to secularism rather than endorsing any particular religious belief (Bader, 1999). This can put religious institutions at a disadvantage compared to non-religious institutions in society (Veit, 1999, p. 597). The second type of definition is about neutrality and equal treatment. According to this definition, religious freedom exists when the government treats all religions the same way (Guy Haarscher, 2002). The crucial point here is that no religion should be favoured over another. In this view, governments can either support or restrict religion, but they must do so equally for all religions.

Roger Finke and others argue that for true religious freedom, a level playing field is essential. When some religions receive government support, it creates an uneven competition for followers (Fox & Finke, 2021). Even if there are no direct restrictions on minority religions, if the majority religion is financially backed by the government, it places a burden on minority religions as their followers end up supporting their non-funded religion in addition to contributing through taxes. This competitive disadvantage is akin to active discrimination against minority religious institutions (Finke, 1990, p. 609; Toft, Philpott, & Shah, 2011). Some argue that governments only need to meet certain basic standards to ensure religious freedom. An example of this minimalist approach is provided by Mazie (Mazie, 2004, p. 3).

According to Roger Finke, supporting or having an official religion does not necessarily violate religious freedom if certain criteria are met. This includes granting complete freedom for minority religions to practice their beliefs and not enforcing the majority religion as mandatory (Adamczyk, Wybraniec, & Finke, 2004). Other forms of support, such as funding and declaring religious holidays, are permissible. While some may disagree with these policies, in democracies, differing opinions on policies are common, and this minimalist definition of religious freedom aligns with democratic principles. Driessen echoes this perspective, emphasizing that religious authorities should not have the authority to veto government policies (Driessen, 2010, p. 55). Casanova similarly argues that an official religion only violates religious freedom when it monopolizes state territory, hinders the free exercise of religion, and undermines equal rights or access for all citizens (Casanova, 2009). In this context, we attempted to analyse the pros and cons of religious freedom in the Southeast Asian nations of Indonesia, Malaysia, Singapore, and Thailand, taking into consideration the data provided by USCIRF.

1.2 The Case of Southeast Asia

Southeast Asia is a culturally diverse region characterised by the convergence of five major belief systems: Animism, Buddhism, Christianity, Hinduism, and Islam, within a complex fabric of ethnicities and territories (Alatas, 1970; Peletz, 2009; King, 2019). While the constitutions of countries in the region nominally include provisions to safeguard freedom of religion and belief (FoRB), inspired by international human rights instruments such as the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the UN Declaration on the Elimination of All Forms of Intolerance and Discrimination Based on Religion or Belief, in practice, these governments often fail

to effectively protect FoRB. They frequently justify their limitations on religious freedom by invoking concerns related to national security and religious harmony (USCIRF, 2023, p. 3).

This report deviates from the conventional focus on laws and policies that curtail religious freedom and instead sheds light on an often-overlooked issue contributing to FoRB violations, the bureaucratisation of religion. Specifically, governments in Indonesia, Malaysia, Singapore, and Thailand employ administrative mechanisms to regulate religious matters within their respective jurisdictions. This 'bureaucratisation of religion' empowers civil servants to directly intervene in domestic religious affairs, impacting not only religious, ethnic, gender, racial, and sexual minorities but also members of the religious majorities (USCIRF, 2023, p. 3).

The report identifies five key features of this bureaucratization of religion that restrict people's FoRB in Southeast Asia (USCIRF, 2023, p. 3):

a) Utilization of national religious frameworks and administrative structures to maintain the dominant religious group's status quo and interpretation.

b) Development of close relationships with quasi-governmental religious organizations to influence citizens' beliefs in alignment with official religious interpretations.

c) Issuance of administrative regulations governing religious practices, including the registration of religious organizations and places of worship, regulations on proselytization and conversion, and the inclusion of religious beliefs on official documents.

d) Establishment of institutions for moral policing and religious legal rulings to enforce officially favoured religious principles, making them legally binding.

e) Implementation of dual legal jurisdiction systems to strengthen the state's influence over the judiciary, solidifying Sunni Islam's role in Malaysia and Indonesia while limiting Islam's influence in Singapore and Thailand.

The bureaucratic mechanisms wield a substantial influence on religious practices within the region of Southeast Asia. Their far-reaching effects extend across both minority and majority religious communities, presenting formidable hurdles that hinder the full realization of freedom of religion and belief in this geographical area (Trương & Singh Kanwal, 2021). Such mechanisms not only impact the day-to-day expression of faith but also present challenges that impede the

unfettered exercise of religious freedoms, thereby influencing the socio-cultural fabric of Southeast Asia.

However, drawing inspiration from Article 18 of the Universal Declaration of Human Rights (1948), which underscores the imperative to safeguard the freedom of religion for every individual, regardless of their particular faith or belief systems (USCIRF, 2023, p. 4). This fundamental principle is echoed in various other significant international human rights documents, including the International Covenant on Civil and Political Rights (ICCPR) of 1966 and the UN Declaration on the Elimination of All Forms of Intolerance and Discrimination Based on Religion or Belief (1981) in Article 1. Moreover, the theoretical guarantee of freedom of religion or belief (FoRB) is enshrined in the constitutions of most Southeast Asian countries, in line with the international human rights treaties they have ratified (USCIRF, 2023, p. 4). However, extensive research indicates that, in practice, laws, policies, and context-specific practices in much of Southeast Asia impose significant restrictions on FoRB. Traditionally, assessments of FoRB have primarily focused on how legal constraints curtail its exercise (USCIRF, 2023, p. 4). Nevertheless, there is an emerging trend suggesting that certain governments in the region are bureaucratizing religion, thus introducing another layer of limitations on the management of religious affairs.

It is argued that the bureaucratization of religion in Southeast Asia directly hampers FoRB, affecting both majority and minority religious communities. Furthermore, it underscores the importance of understanding the interplay of these bureaucratic practices with other fundamental rights, such as freedom of expression, and how they contribute to gender-based and ethno-religious discrimination. A comprehensive grasp of the impact of administratively managing religions on FoRB in Southeast Asia is essential for those analysing and addressing FoRB conditions in the region.

1.3 Religious Transformation and Bureaucratic System

Bureaucratization, as a process, involves the delegation of authority by the executive branch to administrative state organs for the issuance of regulations and the allocation of resources to manage specific state functions (Hill, 1992). When applied to the management of religion by public officials, this process results in the 'bureaucratization of religion,' wherein civil servants gain the authority to directly intervene in religious matters with ideological influence (Kunkler, 2018). While bureaucratic management of religion is a global practice to varying degrees, it can pose challenges in countries with weak rights-protection mechanisms (Zhang, 2020).

Bureaucratic procedures that limit freedom of religion and belief (FoRB) are often perpetuated as part of a government's effort to control religious affairs and enforce a specific interpretation (Boyle & Sheen, 2013). As a result, it becomes essential to utilize the principles of Freedom of Religion or Belief (FoRB) outlined in international treaties and domestic constitutions to assess the daily handling of religious affairs by state bureaucracies. The subsequent segment explores how Indonesia, Malaysia, Singapore, and Thailand administer and oversee religious affairs within their respective countries. It further evaluates the impact of these approaches on Freedom of Religion or Belief (FoRB) by employing the five distinct bureaucratic mechanisms mentioned earlier.

2. METHODS

This study utilizes a qualitative research approach, drawing upon original research and expert interviews to examine the bureaucratization of religion in Indonesia, Malaysia, Singapore, and Thailand. Data sources include government reports, legal documents, academic articles, and interviews with scholars, religious leaders, and policymakers. The analysis focuses on identifying the key bureaucratic mechanisms used to regulate religion and assessing their impact on religious freedom.

3. RESULTS
3.1 Indonesia

In Indonesia, the constitution guarantees freedom of worship according to individual beliefs. Pancasila, a national blueprint, upholds the belief in one God as its core principle and officially recognizes six religions: Islam, Protestantism, Catholicism, Buddhism, Hinduism, and Confucianism. The Ministry of Religious Affairs (MORA) manages religious affairs and allocates a significant budget for religious education. However, religions not officially recognized must register as socio-cultural organizations through the Ministry of Education and Culture (USCIRF, 2023, p. 7). Historically, MORA primarily supported the Muslim community, while recent efforts have focused on promoting moderate religiosity and preventing religious radicalism. Nevertheless, Islamic politics exert significant influence within MORA. The ministry remains centralized in Jakarta, with certain powers related to Islamic administration delegated to specific agencies and regions, such as Aceh, which maintains autonomy in implementing Islamic laws. Indonesia lacks official state religious councils, but there are quasi-government organizations linked with national political actors. In Aceh, the Ulama Consultative Council plays a significant role in the legislative process and provides guidance on religion (USCIRF, 2023, p. 7).

3.2 Malaysia

Malaysia is a multi-religious country with Islam as the official religion. The country's dual legal system includes both civil and Shariah courts, with the latter having jurisdiction over matters pertaining to Islam. This dual system can create challenges for religious freedom, particularly for religious minorities (USCIRF, 2023, p. 8). The Department of Islamic Development Malaysia (JAKIM) is the primary government body responsible for regulating Islamic affairs in Malaysia. JAKIM plays a significant role in formulating and enforcing Islamic laws and policies, including the issuance of halal certification and the administration of religious education (USCIRF, 2023, p. 9). One of the key bureaucratic mechanisms affecting religious freedom in Malaysia is the requirement for religious organizations to register with the Registrar of Societies (ROS). Failure to register can result in legal consequences, including the inability to operate legally. This requirement has been used to target and restrict the activities of religious minorities and non-governmental organizations (USCIRF, 2023, p. 9). In addition, Malaysia's legal framework includes laws that criminalize blasphemy and apostasy (the act of leaving Islam), which can lead to severe penalties, including imprisonment. These laws disproportionately affect individuals from religious minority groups and those who wish to convert from Islam to another religion (USCIRF, 2023, p. 9). The bureaucratization of religion in Malaysia also extends to moral policing, with institutions like the Federal Territories Islamic Religious Department (JAWI) conducting raids and enforcement activities to ensure compliance with Islamic moral standards. These actions often infringe upon the personal freedoms of individuals, particularly women and members of the LGBTQ+ community (USCIRF, 2023, p. 10).

3.3 Thailand

The constitution Thailand emphasizes the promotion and protection of Theravada Buddhism, with specific measures to prevent any undermining of Buddhism. This may appear to conflict with the constitutional right of individuals to practice their religion freely. The country's national pillars are nation, religion, and king, with religion largely associated with Thai Buddhism, and the monarchy plays a central role in governing the nation through its use of religion (Chambers, 2021). The monarch is expected to be a devout Buddhist, which strengthens the connection between religion, morality, and the legitimacy of the government (USCIRF, 2023, p. 9). Key agencies responsible for managing religion in Thailand are the Religious Affairs Department (RAD) and the National Office of Buddhism (NOB). RAD, under the Ministry of Culture, handles various religious affairs and supports Buddhism. Their budget mainly covers expenses related to Islamic bodies, places of worship, and Buddhist activities. The NOB, which reports directly to the Prime Minister's Office, is allocated a substantial budget, and supports the Sangha and the upkeep of religious sites. It also funds Buddhist missions in the Thai "Deep South," which has a significant Malay Muslim community (USCIRF, 2023, p. 9).

The Sangha Supreme Council of Thailand oversees many Buddhist monks, novices, and temples. Established in 1963, it has centralized command over Buddhist clergy and standardised Buddhist texts and practices. It has the authority to appoint senior councillors and the Supreme Patriarch. In contrast, the Central Islamic Council of Thailand (CICOT), the Islamic counterpart, has a more limited scope and role. It falls under the Ministry of Interior and the Ministry of Education, with some regulatory powers retained by RAD. CICOT is led by the Sheikul Islam, responsible for various functions, including managing the Hajj and issuing Islamic religious decrees (fatwas) (USCIRF, 2023, p. 9).

3.4 Singapore

The religious landscape of Singapore is governed by ethno-religiosity and multiculturalism. The government plays a significant role in managing religious affairs through various laws, mechanisms, and religious councils. After achieving independence, the government emphasized social and religious harmony, ensuring that the Chinese majority does not demand special privileges, allowing equal rights for minority groups. Religion is considered a matter of national security due to the country's history of ethnic and religious tensions. Singapore's constitution protects the right to profess, practice, and propagate religion while prohibiting racial and religious discrimination. It can be characterized as a 'strict multiculturalist' or 'authoritarian secularist' state, with political arms of the government exerting control over religious matters (USCIRF, 2023, p. 10). The Ministry of Culture, Community and Youth (MCCY) manages religious affairs through its 'Community Relations and Engagement Programme,' with a budget of SGD 107 million. This program focuses on promoting racial and religious harmony, developing networks among ethnic and religious organizations, and administering Muslim personal and family law (USCIRF, 2023, p. 10).

The Islamic Religious Council (Majlis Ugama Islam Singapura; MUIS) operates under the MCCY and administers mosques, issues fatwas, supervises religious education, and advises the President on Islamic affairs. MUIS consists of members nominated by government officials and Muslim organizations, and it plays a role in shaping a 'Singapore Muslim Identity' that aligns with civic values and the government's secular nation-building efforts (USCIRF, 2023, p. 10). The government's strict

authority over religious affairs is driven by the historical significance of Islam in the region and the government's concerns about potential challenges to the secular state system posed by a religion with a more holistic worldview.

3.4.1 Religious Governance Ramifications

The bureaucratization of religious affairs in Indonesia, Malaysia, Singapore, and Thailand has had a direct and detrimental impact on freedom of religion and belief (FoRB) and related rights and liberties, such as freedom of expression, non-discrimination, and equality before the law, particularly affecting religious, ethnic, gender, and sexual minority groups in the region. This negative influence is evident in several specific areas, including restrictions on places of worship, barriers to conversion and proselytization,[1] suppression of expression and criticism, discrimination against gender and sexual minorities based on religion, and the facilitation of ethno-religious dominance (USCIRF, 2023, p. 18). Each of these impacts involves various bureaucratic mechanisms, revealing that regional governments employ multiple strategies to manage religious affairs and promote their endorsed interpretations of religion, resulting in violations of FoRB and related rights.

In Aceh, Indonesia, Christians face stringent requirements for establishing churches, including obtaining double the signatures mandated elsewhere in the country. Local authorities impose restrictions on non-Muslim places of worship, leading to demolitions and protests. In Malaysia, unclear constitutional status allows local communities to threaten religious sites, with majority representation limiting religious symbols. Thailand's restrictions on mosque and church construction reflect attempts to control the spread of Islam and Christianity. Singapore prohibits religious symbols in schools since 2011, citing social harmony, limiting students' expression of religious beliefs (USCIRF, 2023, 18). The bureaucratisation of religion, along with the influence of societal groups and government actions, has contributed to the limitations on religious freedom and related rights in these Southeast Asian countries.

Bureaucratic agencies often perceive religious conversion and proselytization through a security lens, treating any shifts from state-endorsed religious beliefs to others as potential security threats. To protect their monopoly on the 'correct' interpretation of faith, governments impose bans on teachings considered 'deviant' from state-linked religious organizations, leading

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[1]Proselytization refers to the act of attempting to convert someone from one belief or religious faith to another. It involves actively advocating or promoting a particular religious doctrine or faith to individuals who may adhere to different beliefs or have no specific religious affiliation.

to restrictions on conversion and proselytization. Even in cases without clear legal mechanisms, disputes regarding religious court jurisdiction over matters like marriage, divorce, and child custody can impact people's freedom to convert to another religion. These regulations on proselytization and conversion hinder the spread of non-majority religions and limit individuals' ability to change their faith, with governments sometimes turning a blind eye to forced conversions.

In Indonesia, government regulations on proselytization result in false accusations against minority preachers, facilitating forced conversions. Malaysia employs constitutional definitions to restrict the conversion of Malay individuals, using discriminatory policies and re-education camps. Singapore, while not legally limiting conversion, has an 'unspoken right' protecting the Muslim community. Thailand faces controversies over unconventional Buddhist monks and accusations against a Christian relief team during the 2004 tsunami. Across Southeast Asia, administrative measures, citing reasons like public order and religious harmony, suppress open discourse on religion, leading to discrimination against minority groups. Examples include Indonesia's influential MUI issuing fatwas and Malaysia's crackdown on atheist NGOs. In Singapore, government practices discourage active proselytization challenging the Muslim community, while Thailand targets religious actors challenging mainstream views, limiting freedom of religion or belief, and creating tensions among minority groups (USCIRF, 2023, 18-20).

4. DISCUSSION

The bureaucratization of religion in Southeast Asia imposes significant constraints on religious freedom. Governments in Indonesia, Malaysia, Singapore, and Thailand use administrative frameworks to control religious practices, often to the detriment of religious minorities and individual freedoms. However, the study also identifies opportunities within these bureaucratic systems to enhance the protection of religious freedom. Policymakers and advocates can work towards more inclusive and equitable societies by addressing the complexities of religious bureaucratization.

5. CONCLUSION

The bureaucratization of religion in Southeast Asia presents intriguing challenges to the protection of freedom of religion or belief (FoRB). While international scrutiny often centres on overt legal and policy measures, the region's utilization of subtle bureaucratic mechanisms significantly shapes the landscape of religious freedoms. National religious frameworks, government structures, and quasi-governmental religious

organizations collectively influence how FoRB is upheld, yet these mechanisms can inadvertently favour majority religious groups, creating disparities in protection. In addition, administrative frameworks governing religious practices, coupled with moral oversight, introduce further complexities by enforcing regulations that may reinforce majority perspectives. The intertwining of religious and legal authorities, exemplified in religious legal rulings and dual jurisdiction systems, complicates individuals' ability to freely exercise their religious beliefs. Despite bureaucratic intentions to manage religious affairs efficiently and promote social harmony, practical outcomes often diverge, safeguarding state-sanctioned interpretations of religion at the expense of minority groups.

These challenges underscore the urgent need for addressing subtler forms of FoRB violations in Southeast Asia. Beyond addressing explicit legal infringements, reforming bureaucratic structures is essential to promoting transparency, inclusivity, and respect for religious diversity. By adopting a comprehensive approach that encompasses both legal reforms and administrative practices, the region can advance towards a more equitable framework that upholds principles of equality and human rights. This holistic approach is crucial for fostering inclusivity, protecting FoRB for all individuals, and cultivating a society that embraces diversity and pluralism in religious beliefs and practices.

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Conflict of Interest

The authors declare that they have no competing interests

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New Intolerance: Dialectic of Freedom

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> "Spirit is to be observed in the theater of world history where it has its most concrete reality."
> G.W. F. Hegel (1988: 19)

ABSTRACT

Introduction: The current era is marked by significant transformations that could redefine human history and civilization. Drawing on Hegel's dialectical theory, this study explores the inherent conflicts and contradictions in the quest for freedom and prosperity. The primary focus is on understanding the interplay of educational praxis (EP), sociopolitical ideologies (SPI), and historico-economic struggle (HES) in shaping contemporary societal tensions and the emergence of New Intolerance. **Methods**: This study employs a comprehensive theoretical analysis, supported by qualitative data from historical and contemporary sources. The investigation delves into the dialectical processes within EP, SPI, and HES, identifying counterforces such as ignorance, acquisitive dominance, and ideological control. The study also examines contemporary examples of exclusionary authoritarianism and campus unrest to illustrate the practical implications of these theoretical constructs. **Results**: The analysis reveals that each sphere—EP, SPI, and HES—is subject to significant counterforces that exacerbate societal malaise and conflict. The rise of exclusionary authoritarianism, epitomized by Trumpism, and campus unrest are highlighted as manifestations of these underlying tensions. The study finds that current educational and political practices often fail to address the root causes of these conflicts, leading to increased polarization and instability. **Discussion**: The findings suggest that the current societal framework is ill-equipped to handle the complexities of modern challenges. The failure to integrate critical thinking and adaptive strategies in educational practices, along with the persistence of rigid sociopolitical ideologies, contributes to the perpetuation of conflict and intolerance. The study underscores the need for a fundamental rethinking of progress and development in the digital age, emphasizing the role of educational praxis in fostering a more equitable and just society. **Conclusion**: The study concludes that the dialectical forces at play within EP, SPI, and

HES are critical to understanding the emergence of New Intolerance in contemporary society. Addressing these issues requires a holistic approach that integrates critical thinking, adaptive educational practices, and a redefinition of progress. The findings call for a renewed focus on social hope and the potential for human and societal development beyond the current limitations of triumphalism and authoritarianism.

Keywords: Dialectic of Despair; Ordeal of Democracy; Morality of Protest; and Educational Praxis.

1. INTRODUCTION

We live on the cusp of change that might turn a new page in human history and civilizational epoch. Dialectical change, Hegel theorized, "was immanent in human affairs": "Every idea, every force, irrepressibly bred its opposite, and the two merged into a 'unity' that in turn produced its contradiction" (Heilbroner, 1999: 142).

We strive to be free from subjugation, aggression, exploitation, and poverty. We must however fight and wage wars to retain freedom and prosperity. Each society provides for its people means and resources that are crucial to survival as well as development. This urge 'to be free' is fraught with conflict and contradiction. Freedom for what? At what cost? Forces of 'unfreedom' are embedded in 'concrete reality.' The main premise of this article is to define and delineate the flux of forces that dialectically unveil the inter-and-intra-national tensions and fissures that present New Intolerance in the age of anxiety, extremes, resentment, and Artificial Intelligence (AI). The complexity of foci involves the following units:

- Educational Praxis (EP)
- Sociopolitical Ideologies (SPI)
- Historico-Economic Struggle (HES)

Each of the above spheres is confounded by a counterforce in a dialectical process: EP (ignorance); HEC (acquisitive dominance); and SPI (Ideological control). The net outcome is banality of malaise and mayhem in the civilized world.

2. FACETS OF NEW INTOLERANCE

The rise of exclusionary authoritarianism is best exemplified by the hideous specter of Trumpian specter that looms large on the future of democratic freedom. Campus unrest—protests, violence, and suspension of normal educational functions—is the anti-thesis of what temples of learning must be serving in quest of knowledge and truth. The outcome is manufacture of lies and myths, falsification of facts, and perversion of civility in the name of freedom of speech. The exhibit above is dialectic framework that unravels New

Dialectic of the Quest for Freedom: *Ordeal of Knowledge, Democracy, and Justice*

Intolerance as a social phenomenon. Demise of dissent is the casualty.

"The most important thing I teach my students," Robert Reich writes, "is to seek out people who disagree with you" (2024). I concur[2]. Campus unrest against Israel's genocidal war in Gaza is reminiscent of the violent Sixties[3]. Senator Bernie Sanders minces no words: "It [*Sic*] could become Biden's Vietnam."[4]

We are going through very troubled times. The human propensity to forget history is a curse that makes us relive the inglorious past. The failure of imagination— and lack courage-- during seismic changes can be apocalyptic.

Fareed Zakaria brings out his *Age of Revolutions* that shaped the modern world from the seventeenth century to the present. The innovations that the Netherlands invented, the French Revolution that ended feudalism and monarchy, and the Industrial Revolution that replaced human hands by steam engines, and electronic machines that created assembly lines, mass production

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[2]I posted an essay 'Analects of Higher Education' a few years ago on *Researchgate.net* and *Education*.edu. Robert Reich and I are on the same page. The 'superstructure' of Ivory Tower is tumbling down.

[3]I wholeheartedly support Israel's right to defend itself against existential threats. I don't believe criticizing Israel is anti-sematic. Christian Zionists have weaponized 'antisemitism' to annihilate Palestinians as a people.

[4]https://www.kiro7.com/news/politics/bernie-sanders-says/UUCE5GEBCCYIR2DKJT2X2FVHOE/ (May 7, 2024).

and capitalism transformed the old world that had long wallowed in primitive and feudal exploitation. Zakaria contends that Globalization, Technology, Identity, and Geopolitics are four main outcomes for the radicalization of the world we live in today (Zakaria, 2024).

It's worth noting that the "golden age of colonialism" also invented slavery, feuds, and dogmas that brought fraught states and pernicious ideologies that ravaged humankind. The evolution of reason and science did not resolve worldly tensions. The two World Wars redrew the maps and contours of the nation-states that constitute the present 'new world order.'

I see a tsunami of counterrevolutions all over the world. Scourges of reactionary forces have exploded myths of triumphalism at the expense of fledgling democracies and voices of reason. The demise of egalitarian flowers of revolutions could not bloom.

There are at least four major hotspots of violence that can trigger a new world war in which no one wins. A conflict without a winner is a precursor of an inevitable war. From LoC in the divided India to the perpetual savagery between Palestine and Israel and the specter of unwinnable apocalypse around Ukraine and Taiwan are harbingers of a dreaded future. Before AI engulfs humankind, homoserines might kills themselves. This is not a futuristic Sify scenario, it's a conjectural fact-based reflection.

We are "headed into the Abyss." Brian T. Watson who recounts "the story of our time, and the future we'll live," contends: "The current states of just ten forces--capitalism, technology, the internet, politics, media, education, human nature, the environment, population, and transportation--are driving society in predominantly negative ways" (Watson, 2019).

The darkness of abyss and instability of a polarized world call for a deeper, introspective analysis than Watson and Zakaria have accounted for.

In *Rediscovery of Society* and *Return of the Leviathan* (2022; 2024), I have made a modest attempt to unveil the paradox of human-social development in a triumphalist-dysfunctional civilization. Amid institutional meltdown and broken social contract, our contemporary culture--and nation states--confront each other with primordial rage, resentment, and anxiety. This proclivity is confounded by the continued curse of pugnacious territoriality. A nihilist-narcissism is embedded in collective Death Wish. Sigmund Freud held civilization "largely responsible for our misery" (1962: 33). The monumental failure of this civilization impedes the faint possibility of *Übermensch* rising.

Übermensch is evolutionary utopia—a higher level of human performance-- free from nihilism and resentment. George Bernard Shaw's comic play *Man and Superman* made it popular. We "should look at Nietzsche's

and *Zarathustra's* promise of the *Übermensch* as a mere possibility—something to aspire for; something to dream about" (Soloman, 2000: 11).

Hope is a logical impossibility in a nihilist and material culture. Richard Rorty's *Social Hope* (1999) is, however, marred by calcified structures of beliefs, duality of Western thought, Platonism and metaphysics. Rorty says:

"[V]ocabulary which centers around these thoughts which traditional distinctions has become an obstacle to our social hope..... Plato and Aristotle were wrong....I want to demote the quest of knowledge form the status of end-in-itself to that of one more means to towards greater human happiness" (1999: xiii).

Rorty's *Social Hope* is thwarted by the forces that encourage, even breed, authoritarianism, and anti-democratic chaos: Trumpian triumph in the United States, communism thriving on state capitalism in China, statism in Russia and cultish-counter-secularism in Modi's India. "The language of American politics increasingly resembles an Orwellian monologue," Christopher Lasch wrote fifty years ago (1969: 29).

The opening words in *The Manifesto* reverberate in contemporary states of extremes and contradictions that Marx and Engels had predicted: "The spectre is haunting in Europe—the Spectre of Communism. All the powers of old Europe have entered a holy alliance to exorcise this spectre: Pope and Tsar, Metternich and Guizot, French radicals, and German police spies."[5]

A counter-revolution is in the works. The superstructure that protected the Ivory Tower is in disarray. We don't ban guns; we are banning books. School shootings go unabated. Police brutalities are commonplace. New inequality is disturbing. Xenophobia, bigotry, and falsification of truth are new hallmarks of modernity's monstrous specters that haunt nation builders, pundits of politics, and presidents of fabled institutions.

We are on the cusp of a change fraught with uncertainty, insecurity, and violence. Today's commoditized education, unprincipled politics, and lack of an unclouded vision of any program of social reconstruction belies any hope for attaining a decent civil society. The loss of "social hope" is a veritable incubator of despair. Life does exist on "the other side of despair"[6]. Truth and subjectivity (Mohan, 2023a) are phenomenologically interactive. Objectivity, however,

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[5]Quoted by Robert L. Heilbroner (1999: 136)
[6]Jean-Paul Sartre paraphrased.

becomes a victim of its own validity. A genocide in Gaza is a global tragedy but Biblical Zionists justify mayhem as their birthright. Voices of protest and outrage against this orthodoxy is a moral obligation in the wake of post-Enlightenment (Mohan, 2024).

Real freedom in a "mature civilization" calls for redefinition of progress (Marcuse, 1966). Herbert Marcuse raises a question: "The only pertinent question is whether a state of civilization can be reasonably envisaged in human needs are fulfilled in such a manner to such an extent that surplus-repression can be eliminated" (1966: 151). The construction of human, social, and organizational behavior in the digital age presents a paradox of development. Artificial Intelligence has replaced human ingenuity with dire consequences. It's only through educational praxis that progress can replace pernicious triumphalism. Post-industrial society and liberal democracies are plagued by their own contradictions and conflicts. Cultural decadence is not confined to developing nations. Rise of global inequality, authoritarianism, violence, and terror mark the evil profligacy of the new bourgeois class (Mohan, 2023b).

Humankind has witnessed the rise and fall of twenty-seven civilizations. On August 12, 2022, at the amphitheater in Chautauqua, in upstate New York, a free-spirited writer was murderously assaulted by a fanatic. In those twenty-seven heinous seconds, an intolerant assassin's *Knife* (Rushdie, 2024) changed the meaning of 'freedom'. Nietzsche wrote in *Ecce Homo*[7].

"The *lie* of the ideal has hitherto been the curse on reality, through which mankind itself has become mendacious and false down to its deepest instincts— to the point of worshiping the *opposite* values to those which alone could guarantee it prosperity, a future, the exalted *right* to the future."

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[7]Quoted by Luc Ferry (2010: 146)

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Currently, he is working on two new books, including his memoirs.

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CONCEPT PAPER
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Empowering Dance and Technology Education: 10 Vital Steps for Implementation in Underfunded Spaces within Predominantly Black Institutions

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ARTICLE INFO

ABSTRACT

This paper provides resources for Predominantly Black Institutions (PBIs) to develop new Dance Technology courses without initial funding or dance studio spaces. The goal is to help educators build transformative Dance Technology pedagogy and advocate for opportunities for students. The paper draws from the 10 Success Principles created by the Wallace Foundation, Research in Action, and Mcclanahan Associates and adapts and improves upon them to support the needs of Medgar Evers College, an under-resourced Predominantly Black Institution. This work provides a framework for other underfunded PBIs who are interested in building new Dance Technology curriculums. The paper concludes with 10 essential steps and strategies for acquiring technology to develop equitable and accessible Dance Technology curriculums.

1. INTRODUCTION

I define my role as an educator to be an intercessor connecting students to higher consciousness despite their current circumstances. My humanity, Black womanhood, artistry, education, work, pedagogy, research, and practice are byproducts of being a vessel through which faith can work–my ministry. In 2020, I was hired as a tenure-track Assistant Professor in Dance and Media Technology at Medgar Evers College, CUNY — a predominately Black college in central Brooklyn. We are severely underfunded. Therefore, when the Department of Mass Communications, Creative and Performing Arts & Speech launched its first Bachelor of Fine Arts Degree in Media and the Performing Arts, there was a new spark of hope. This interdisciplinary B.F.A. degree at Medgar Evers College, is an avant garde and post-modernist approach to a professional degree combining media and performing arts. A profound uniqueness of this degree is that it required all students to take a new course titled Digital Choreography. This course provided all students to explore Dance and Technology.

My job was to implement the first Digital Choreography Course, a course that explores computer software as a choreographic tool. The problem was there was no funding or dance studio space. How could I solve this problem? How could I build new dance and technology courses during the pandemic without funding? How do I make dance accessible and equitable for Black and brown students who do not believe that they are the true agents of digital innovation? How do I develop pedagogy that centers students' voices? This paper addresses these questions by explaining the formation of the Ten Essential Steps to Building New and Technology Course with no initial funding or studio space.

I also would like to explain a few key terms, I use the term *faith* in this paper to define belief and hope in something to come with no evidence to support it. In my vast background in education and art practice in low-income Black communities, faith has been the only driving force to do this work. Please do not limit faith to solely religious terminology but consider the weight of believing in a hope that statistically should not come to pass. Therefore, building a dance and technology program with no starting funding was an act of faith. *Ministry*, according to Webster's dictionary, is defined as a person or thing through which something is accomplished. Ministry can take on many different forms depending on the people who are being served and by whom a body of people is being served. Ministry is service. Throughout this paper, the evidence of servitude is abundant. Lastly, an **intercessor** is a person who intercedes on behalf of someone to help them. The work described in this paper is an act of intercession–I am acting on behalf of my students to connect them with resources that were not initially present. This act goes beyond the role of an initial job description yet considers the dreams and vision of the department and the students.

2. INITIAL METHOD: THE TEN SUCCESS PRINCIPLES BY THE WALLACE FOUNDATION

In 2013, I was hired as a Youth Artist Dance Mentor by the Boys & Girls Club of Greater Milwaukee. The Wallace Foundation awarded The Boys & Girls Clubs of Greater Milwaukee 5.6 million dollars in research funding to start implementing high-quality arts programming in non-specific arts organizations for tweens (youth ages 9-13). I was the first dance teaching artist hired at the Milwaukee Davis Boys & Girls Club and the dance program still exists today. To build our programs from scratch, we were required to implement the Ten Success Principles developed by the Wallace Foundation, Research in Action, and Mcclanahan Associates which were shaped by a multi-year study of teen arts engagement called "Something to Say: Success Principles for Afterschool Arts Programs from Urban Youth and Other Experts." Their ten principles are:

1. Professional Practicing Artists
2. Executive Commitment
3. Dedicated Spaces
4. High Expectations
5. Culminating Events
6. Positive Adult-Youth and Peer Relationships
7. Youth Input
8. Hands-on Skill Building
9. Community Engagement
10. Physical and Emotional Safety

These ten success principles were a paradigm shift in how I saw dance education. Contrary to my Western Dance Upbringing, where the teacher was "all-knowing", our youth and their families had a voice in the program design. The most beautiful aspect was the funding support by the Wallace Foundation through which we were able to build a wonderful new spacious and beautiful studio for the youth. I learned the true meaning of financial support.

3. NEW METHOD

Contrary to my previous research experience with the Wallace Foundation, I did not have access to a million-dollar budget, a designated space, or a million dollars for professional development opportunities. Instead, I had to adapt the principles to develop a new set of methodologies for program design. As a result, we have the first Multimedia Dance Studio, new media technologies, and an award-winning film, *Gold Sphere*, which has been accepted in the *Cannes World Film Festival*, *Vancouver Black Independent Film Festival, Knowbox Dance Film Festival,* and *The Outlet Dance Project*. I desire to help other institutions and organizations build and design their programs despite not having initial funding or designated space. Therefore, I created ten essential steps to building new dance and technology courses with no funding or studio space in Predominately Black Institutions. An adapted design The steps consist of:

1. *Professors as Intercessors*
2. *Smart Mobile Technology, and Free Apps*
3. *Dance Composition Techniques*
4. *Highlighting Students' Cultural Identities within Dance and Technology*
5. *Community Partners*
6. *Visibility*
7. *Culminating Performances*
8. *Donations*
9. *Faith, Vision, and High Expectations*
10. *Professors as Advocates*

3.1. Professors as Intercessors

Students can see and reap the benefits of having a Practicing Artist and Scholar as their Professor because they model the work ethic needed to enter the field and stay relevant. Even more with the emergence of AI technology and new software, students need professors who help guide them to building careers in the new climate. Linberg (2019) states professors with industry experience have been exposed to a variety of situations and challenges in their work, they can communicate these experiences and how they specifically overcame them. (p.1) Students not only need to respect their professors

as experts but also feel inspired by the Professor's tangible success, including their creativity with innovative pedagogy. Technology is vastly changing and rapidly evolving and we have to find new authentic forms of assessments and evaluations.

Education as intercession considers technology, trends in the field, career readiness, and incorporating these tools in the classroom to make sure students have the upmost chance to succeed. Professors who act as intercessors are actively seeking to build a bridge between the classroom and the real world in order for students to become successful post-graduation.At my Predominately Black Institution, Faculty have to overcome challenges of the lack of funding and find ways to fundraise and write grants to improve instructional technology and improve the students experience. When I became an Assistant Professor at my institution our departmental budget had been significantly impacted by the Pandemic, and writing grants and receiving research funds were necessary to enhance the students' learning experience and to make our program attractive to students.

Having said this, to build a new Dance Technology course with no designated space and funding at a Predominantly Black Institution takes extreme dedication because the stakes are high. Particularly smaller Predominantly Black Institutions and Historically Black Colleges where funding and spacing is limited, it is vital to have a professor in the role of an intercessor practicing and researching in the field of expertise while advocating for your department. These professors will be your department and college's representation and recruitment model that bridges the professional field and the campus. They are the mission realized for new audiences, supporters, and believers. We need the eagerness and willingness of professors to be on the frontline in the spirit of advocacy, and relevancy in the field.

3.2. Smart Mobile Technology and Free Apps

In the Fall of 2020, during the quarantine, I instructed the first Digital Choreography course at Medgar Evers College. Teaching a Digital Choreography course to students who did not have access to technology besides their cell phones and, in some cases, laptops was challenging. I began to lean into all cellular technologies. Cellular technology demystifies technology as being seen as intangible to Black and brown people due to the cost. The college provided free iPads for students which allowed students to interface with mobile technology. During quarantine, young people were the leaders of social media apps such as TikTok and Instagram through the development of viral dance choreographies, challenges, skits, and reporters of popular news. As a professor

my best strategy to enhance student engagement and complete student learning outcomes, and introduce dance and technology, while teaching asynchronously was through smart mobile technology and devices media apps. The important factor was to make sure the smart mobile technology could work on both IOS and Android software.

While teaching online, and later, hybrid teaching, I wanted students to have an opportunity to explore Augmented Reality, Rotoscope Animation, motion capture, and interfacing with digital movement design software. Therefore, I used apps such as *Jerky Motion*, *Choreo AR*, and *Glyacon, Flip-a-Clip* to introduce students to these concepts. cellular apps kept students curious and engaged during online and hybrid learning. These apps have a quick output, which does not discourage students from experimenting with technology. These apps also have online tutorials which can help professors with learning curves and provide additional assistance towards students in need. In the culmination of the semester students created Augmented Reality duets, Rotoscoping animations, and Mixed Reality dance films from home.

I do acknowledge that some professors may be hesitant to use mobile technology; however, mobile technology allows for equity and accessibility for students who may not be able to afford expensive technology and colleges who are underfunded. Although cellular technology is a solution for accessibility problem, this is a small piece of the world of dance and technology and is not meant to replace other traditional technology taught in acadeia. Mobile technology is an avenue for students to create to despite funding circumstances and provides opportunities of innovation.

3.3. Dance Composition Techniques

Due to this B.F.A. program being an interdisciplinary degree in Media and Performance our students are not considered dance majors; therefore, most of the students are novices to dance and choreography. Focusing on developing basic skill-level techniques in composition with the physical body is important and will give them more tools for creating in the digital and virtual realms. Lessons that include the following choreographic devices are suggested: The Five Elements of Choreography, Body, Action, Energy, Time, and Space, Motif, Phrasing, and Repetition. Introducing students to creating solo work with their physical bodies, group work, and integrating the two deemed vital to the Digital Choreography course.

Dealing with the high stakes of choreography and technology, instructors should handle each thing with care and caution. Making choreography accessible to

beginners allowed for less insecurity with making digital dances. Starting with simple choreographic studies like creating walking dances will aid in students being able to learn and implement choreographic devices before adding dance vocabulary. For example, a technique I learned by Dr. Susan Foster, is to make "Walking Dances". Students walk from one side of the room to the other side of the room implementing one of the choreographic devices, discussed in class, like Reptition mentioned above. Then, continue adding more choreographic devices until students began to understand the endless potential they have to create and organize dance. The hope is that students will begin seeing the process of choreographic composition as an exploration of organizing of movements and expand their knowledge of dance. This method of teaching composition may look different than compositions and dance conservatories. Yet, I have found through my research this method served as a great introduction to new students taking a choreography. Course.

3.4. Highlighting Students' Cultural Identities within Dance and Technology

Implementing the first Dance and Technology program at a PBI needs to have a strong connection to the students' diverse cultural identities. Especially at Medgar Evers College where there is a large diverse population of Black people from the Caribbean, Africa, and the United States of America, instructors must make sure that students see themselves inside of dance and technology. Catherine Steele Knight (2021), argues Black women's historical and persistent relationship with technology provides the most generative means of studying the possibilities and constraints of our ever-changing digital world (p.1). Instructors should include diverse technologists including Black women when introducing technology to students. Teaching students about Eurocentric performers and technologists alone will not retain students, especially as introductory concepts that traditionally can exclude them. Instructors must implement assignments that position students as experts through the implementation of their cultures and origins inside assignments and final products. Asking students to bring in their social dances from their neighborhoods and cultures inside of the classroom and digital realm transforms the assignment into a celebratory event.

Showing students representations of Black Technologists helps improve students' connection with technology. Catherine Knight Steeles, book *Black Feminist Technologists* has become a staple in my Dance Technology classrooms. Her intention of highlighting Black women as technologists helps empower students to see themselves as technologists. As McCarthy-Brown (2017) suggests, diversifying curriculum is essential for all students and demographics. (p. 11) Showing students other Black Digital creators like Khalil Joseph, Black filmmaker and Music Director, and Arthur Jafa, a Black Visual Artist and Filmmaker. also helps students understand the power of bringing their culture inside of performance and technology.

3.5. Community Partners

Community partners are highly essential to new programs as they are developing, especially partners who are willing to lend resources. In 2018, I was awarded the Chuck Davis Emerging Choreographer Fellowship from the Brooklyn Academy of Music (BAM). When accepting the position at Medgar Evers College I knew that I needed resources to help launch our program. Boothroyd, et al, (2017) believe that with an active and involved community, local leadership demonstrated organizational commitment, and system capacity and support for implementation, all parts of the organization and system can work in concert to address systemic barriers, and support quality practice. (p, 4) Having said this Ava Kinsely, Mecca Madyun, and I created a dance residency at Medgar Evers College. BAM paid for a teaching artist to come to Medgar Evers College and teach dance for a week and then students took classes at BAM to experience dancing in a studio. Dancers were also offered an opportunity to join BAM's Dance in Focus program. This partnership allowed students to experience dancing in a studio while I worked on creating a dance studio space on campus.

Secondly, I developed a technology partnership with the Integrated Design & Media | Tandon School of Engineering at New York University. We worked with two of their graduate students on a mixed-reality project titled, *Gold Sphere.* We were able to use their Motion Capture Studios and the students designed the virtual environment. This film went on to win Best Futurist Filmmaker at *Cannes World Film Festival* and was an official selection of *KnowBox Dance Festival* shown in Seoul, South Korea, Oaxaca, Mexico, and Dallas, Texas. We were able to accomplish this without any technology, dance studio, or equipment.

3.6. Visibility

Departments must create social media pages, websites, and platforms that showcase student's work and faculty plans. Audiences, colleagues, administrations, and the community must know what it is that your program is working on. It is imperative to find opportunities to highlight students' work and allow people to be on the

journey with you. Create an Instagram page highlighting your students, faculty, and staff to showcase your department. Especially, during the pandemic, students could come to the Instagram page to see what their peers were up to. This also shows the administration your impact on the students and department which will increase the buy-in for leadership support.

3.7. Culminating Performances

There must always be a performance, event, or showcase highlighting the work students learned in the dance and technology class. Even when the performances are entry-level and less sophisticated in the beginning. Keeping the end in mind, the journey builds the credibility of the program. We know that as time progresses students will be able to have adequate dedicated space and technology but we still need evidence-based performances. Culminating performances also allow for family engagement in the program. Inviting friends, families, supporters, and the community helps strengthen the college and department's relationship with the students. Lastly, culminating events are a measurement of growth.

3.8. Funding and Donations

In an ideal world, funding will be unlimited, and you will be able to teach your students with the latest technology inside your designated studios. You will have colleagues within your department and around the college with sufficient technology to support you and your student's endeavors. You have to fundraise yourself when working at an under resourced college.

When we transitioned to a hybrid model, I brought my technology equipment to jump-start our student's experience. The Oculus Quest allowed students to experience virtual reality and motion capture through the Glyacon app. I also applied and was the recipient of grants within CUNY to donate to the dance studio.

3.9. Faith, Vision, and High Expectations

Professors must be able to see past the current circumstances and have vision. To successfully implement a new program, one must believe they can achieve what one needs. Life is uncertain, but faith does not have to be. When I became a full-time professor, I did not become discouraged by what we did not have as an institution. I focused on the vision. What is your college's mission? What is your mission? These questions are important because they help develop strategy. Do not become discouraged by the lack of funding, yet be inspired to keep going.

It is vital to ensure we have high expectations for our students. We should expect students to have rigorous assignments and find ways of cultivating their voices. We should not expect less but push students to their full potential. In our Predominately Back Institution, we have to accept that we are not like the other colleges in CUNY or the United States of America. We have our own identity, culture, and values in which social justice is in our D.N.A. When I started at Medgar Evers College, we had no technology for dance besides an Adobe Suite, no dance studio, and no motion capture suits. Now we have a Multimedia Dance Studio, award-winning film, and digital dance performances that students were able to create to beat the odds against them. These essential steps will help you create your first dance and technology course without a studio or funding.

3.10. Professors as Advocates

When I began my tenure track at Medgar Evers College in 2020, all of the classes were held asynchronously online. This online modality lasted one and a half years. Historically, dance classes were held at Medgar Evers College on the auditorium stage –a space that is shared amongst the college. There was no dedicated space for dance alone. After returning to a Hybrid model in Spring 2022, the shared auditorium space in which the dance classes were historically held at was now under construction which left the dance classes to be held in traditional classrooms with desks and carpeted floors which is not suitable for dance. This is when I began to advocate for a new dance studio for our students. "Transformations often begin, and begin well, when an organization has a new head who is a good leader and who sees the need for major change." *(Kotter., 1995, p. 60)* Medgar Evers College's first female President Patricia Ramsey, supported the endeavor of creating a dance studio at the College and saw the need for change. One of our first conversations as a new faculty was the need for better flooring to support dance. With the Chair's support, I wrote letters to President Ramsey, Senior Vice President of Finance, and The Provost and Vice President of Medgar Evers College to support the dance studio. After a year, the studio was granted, and I was able to implement the first Multimedia Dance Studio created at Medgar Evers College.

I would be remised to not mention the challenges I faced as a nontenured faculty advocating for institutional change. I was met with resistance and unbelief by some leadership and administration. Despite the attempts of blockages through hierarchical systems, I took advantage of all open forums in the college which allowed faculty to speak directly with President in public talks. As a true

advocate and believer in the power of Dance Education the reward was worth the risk.

4. CONCLUSION

When we think of the future of dance education, we must consider new media technologies that will impact the dance field. Although these Dance Technology courses are still developing as we speak, the steps written in this article not only helped the students in advance in the field of dance and new media, but it allowed for the transformation of pedagogy. My hope is that these steps can help other Minority Serving Institutions and Historically Black Colleges and Universities develop Dance and Technology programs.

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Her research interest explores dance, film, and new media technologies through an African-American Woman's Lens. Her creative research, Gold, is an ongoing multimedia research project aimed at empowering Black people by connecting them to the metaphysical powers of Gold through the mediums of dance, film, sound, and writing.

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Evaluating the Impact of Innovation and Entrepreneurship Education on Sustaining Student Entrepreneurial Intentions: A Case Study in Chongqing, China

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ABSTRACT

Introduction: Innovation and Entrepreneurship Education (IEE) is a mandatory program for Finance and Economics students at a Chinese university in Chongqing, designed to foster sustainable entrepreneurial intentions (EI). Strong EI is believed to increase the likelihood of students starting their own businesses post-graduation, contributing to China's economic sustainability. This study aims to investigate the influence of IEE on EI among these students. **Methods**: A mixed-methods approach was employed. Quantitative data were collected from 827 student questionnaires, and qualitative insights were gained through interviews with 23 purposively selected students. The quantitative analysis examined the levels of IEE and EI, and their correlation. Qualitative data focused on students' perceptions of IEE teacher quality, teaching methods, and the program's relevance to different disciplines. **Results**: Quantitative analysis indicated moderate levels of IEE and EI, as well as a moderate correlation between them. Qualitative findings revealed several issues: students felt that IEE teacher quality was lacking, and that the didactic teaching methods used were not motivating. Additionally, students expressed concern that the IEE program was not tailored to the needs of different disciplines, with a one-size-fits-all approach failing to meet diverse student needs. Both data sources suggested that the IEE program should evolve with societal progress, incorporating the latest trends in the global financial industry to remain relevant and effective. **Discussion:** The study's findings suggest that the current IEE program needs significant changes to enhance its effectiveness. This includes improving teacher quality, diversifying teaching methods, and customizing the program to cater to different academic disciplines. Aligning the program content with contemporary global financial trends is also necessary. **Conclusion**: The IEE program at the Chongqing university requires a comprehensive revamp to better support the development of sustainable entrepreneurial intentions among students. This involves redesigning and enhancing the curriculum to meet current educational and industry standards.

Keywords: IEE; EI; Sustainability of EI; University IEE Program.

1. INTRODUCTION AND BACKGROUND

Globalization of business activity has created more and more entrepreneurial opportunities. The more entrepreneurial opportunities you seize, the faster the economic growth will be. Therefore, entrepreneurship plays a vital role in economic development by incubating technological innovations, increasing economic efficiency, and creating new jobs. Many researches have been conducted on entrepreneurship when its importance and contribution towards the global and domestic prosperity and stability of nations is realized. In addition, research on entrepreneurship has gained increasing attention as there is also a realization of the need for businesses and academia to work together to find effective strategies to enhance entrepreneurship. Some researchers have argued that entrepreneurship can be learned, which is crucial for economic growth. Thus, universities and colleges must provide entrepreneurship education before graduation (Abbasianchavari & Moritz, 2021; Muniem et al., 2022; Newman et al., 2019).

To get more people to start a business, the first step is to increase their entrepreneurial intentions (EI). According to Thompson (2009), EI refers to a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so now or in the future. As intention has a relatively high ability to predict actual behaviors, EI is closely relevant to entrepreneurial activities (Krueger, 2017). The younger generation is the main force of entrepreneurship, with more than half of successful entrepreneurs starting their businesses between the ages of 20 and 29. EI is one strategic factor that propels and prepares them to start a business and succeed in their college education. College students have the potential to become the main force of innovation and entrepreneurship in the future because they are perceived to have better skills in learning systematic instillation and training for innovative thinking. The younger generation usually has a more active mind, entrepreneurial skills, and high scientific and cultural qualities. Therefore, the cultivation of EI should be strengthened in universities and colleges, with specific attention given to innovation and entrepreneurship education (IEE). In this study, IEE is operationally defined as educational concepts and education models based on cultivating people's innovative spirit, entrepreneurial consciousness, and ability (Zhang & Wang, 2013).

2. LITERATURE REVIEW

The relationship between IEE and EI has always been the focus of IEE research. There are mainly three viewpoints in academic circles. The first is a positive correlation, the second is a negative correlation, and the third is irrelevant. Most scholars believe that IEE and EI are positively correlated. Solomon et al. (2002) and other scholars found that greater exposure to IEE would lead to more incredible start-up ventures. Peterman and Kennedy (2003) who studied the impact of self-efficacy-based participation in business education projects on the ambition and viability of Australian entrepreneurs found that IEE helped improve EI. IEE not only cultivate students' attitudes and intentions and the founding of a new business entity, but it also improves their skills and perception of value or improves confidence (Drost, 2010; Liñán, 2008). In a nutshell, IEE can enhance EI (Maresch et al., 2016; Tao & Zi, 2019; Von Graevenitz et al., 2010). To get a more accurate result, De Clercq et al. (2013) conducted a well-designed Meta-analysis. The results showed that there is a small and positive relationship between IEE and EI, with a weighted correlation coefficient of 0.137.

On the other hand, there is a handful of other scholars who believed that IEE and EI are either not related or not related in a positive manner. In their study, Souitaris et al. (2007) discovered no significant relationship between the learning and intention of entrepreneurship education curricula. Similarly, Bae et al. (2014) obtained the same result when they compared EI before and after receiving IEE. Yet other researchers like Oosterbeek et al. (2010) even found that both IEE and EI are negatively correlated. So did Adelaja and Minai (2018) who used experimental design methods to study the changes in EI after IEE acceptance. Their research results also provided contrary evidence for the positive specification of EI changes due to IEE exposure. The relationship between IEE and EI appears to be complex. It would appear that different researchers have different views, and the jury is still out.

3. METHODOLOGY

The primary purpose of this study is to investigate the influence of IEE on sustainable EI among students at a university in Chongqing, China. IEE is the independent variable while EI is the dependent variable. The study also examines the influence of demographic variables of respondents on IEE and EI. Specifically, the study was conducted to fulfill the following objectives: (1) To investigate the level of IEE and EI of the undergraduates; (2) To explore the difference between IEE and EI among undergraduates of different demographics; (3) To investigate the relationship between IEE and EI among undergraduates; (4) To explore how to improve IEE to promote EI. The research questions in this study are as follows:

(1) What is the level of IEE among undergraduates?
(2) Do demographic variables influence IEE?
(3) What is the level of EI among undergraduates?

(4) Do demographic variables influence EI?

(5) Is there any relationship between IEE and EI?

(6) What are the perceptions of students towards IEE?

(7) How to improve IEE and EI?

This study utilizes both qualitative and quantitative methodologies; questionnaire survey and face-to-face interviews. It is an explanatory sequential mixed-method two-phase study. The mixed method was adopted as it provides a means to understand the complexity of the research focus better.

3.1 Sampling

A total of one thousand and fifteen (1,015) students from the nine (9) faculties of a private university in Chongqing, China responded to the same questionnaire given to them. Subsequently, the researcher filtered the questionnaires received by discarding those who answered within 130 seconds. This time range is selected because, with sixty-five (65) questions in the questionnaire, this would mean the respondent only spent only 2 seconds answering each question on average, which is too short. The researcher also discarded entries with almost similar answers for each question. These two factors of short time range in answering almost similar answers for each item were chosen as the initial criteria for determining the validity of the questionnaires as it raises doubt of seriousness among respondents in answering this questionnaire (Yuan, 2020). Finally, only eight hundred and twenty-seven (827) questionnaires were considered to be analyzed in this study.

The selection of interviewees was mainly based on four (4) multistage criteria as follows. First, students who obtained the lowest and the highest IEE level were identified from each faculty. Second, these students with divided according to their levels of EI. Third, the distribution was made according to the demographic variables of gender, and year. Finally, twenty-three (23) students were chosen to be interviewed. They came from all the different faculties in the university, they were of mixed gender, in different years at the university, and had different levels of IEE and EI.

3.2 Instrumentation

Two (2) sets of questionnaires were used in this study to answer the research questions: First is the "Innovation and Entrepreneurship Education, IEE Questionnaire" adapted from Li (2013) and Huang and Huang (2019). This instrument aims to investigate undergraduates' IEE by focusing on four dimensions: students' satisfaction with IEE content, teachers' quality, school IEE practice, and student engagement

in IEE. The second instrument is the "Entrepreneurship Intentions Questionnaire", adopted by Liu (2018). The instrument aims to investigate undergraduates' EI by focusing on two dimensions: perceived desirability and perceived feasibility. A 7-point Likert scale was used for both questionnaires, which makes up a continuum from strongly disagree (1) to strongly agree (7). In this study, the 7-point Likert scale is re-classified as high, medium, and low, as shown in Table 1. Factor analysis was conducted before finalizing these items to ensure convergent validity.

4. RESULTS

4.1 The Level of IEE Among the Undergraduates

The first research question in this study is 'What is the level of IEE among undergraduates?' To answer this question, descriptive analysis was used (see Table 2). IEE was measured by 24 items from four sub-scales, as shown in Table 2. The overall mean IEE level among the students is medium (M = 4.57). Students were most satisfied with teachers' quality (M = 4.69) and least satisfied with student engagement in IEE (M = 4.10).

4.2 Differences in IEE Level Among Students with Different Demographic Variables

The second research question is, 'Do demographic variables influence IEE'? The demographic variables collected are gender, whether they have attended the IEE course at their university, entrepreneurial family background, personal entrepreneurial experience, perception of the employment environment, and perception of the entrepreneurial environment influences IEE level. A T-test and one-way ANOVA were employed to analyze whether these demographic variables significantly influence IEE levels. The result is shown

Table 1. *Grade division of the 7-point Likert scale*

Grade	Mean Value
High	5≤mean≤7
Medium	3<mean<5
Low	1≤mean≤3

Table 2. *Distribution of Means and Standard Deviations for Levels of IEE among the undergraduates (n = 827)*

Sub-scales	No of items	Mean (M)	Std. D (SD)
Students' Content Satisfaction with School IEE	8	4.66	1.107
Teachers' Quality	6	4.70	1.117
School IEE practice curriculum	6	4.63	1.096
Student Engagement in IEE	4	4.10	1.219
Total	24	4.57	1.001

Table 3. *Analysis of IEE Level according to Different Demographic Variables n=827)*

Demographic Variables	Items/Indicators	N	F	Sig.
Entrepreneurial Family Background	One of your parents/ one of your siblings has an entrepreneurial experience.	357	.298	.009*
	None of the parents or siblings had any entrepreneurial experience.	470		
Personal Entrepreneurial Experience	Entrepreneur	11	.158	.046*
	Non-entrepreneur	816		
Perception of the Employment Environment	Very optimistic	28	9.081	. 000*
	Optimistic	192		
	General	66		
	Very pessimistic	205		
	Pessimistic	336		
Perception of Entrepreneurial Environment	Very good	25	15.767	.000*
	Good	266		
	General	432		
	Poor	91		
	Very poor	13		
Gender	Male	249	1.623	.250
	Female	578		
IEE Course	Have not Attended an IEE Course	527	1.109	.144
	Have Attend in IEE Course	300		

*Significant at p < 0.05.

Table 4. *Distribution of Means and Standard Deviations for the level of EP among the undergraduates (n=827)*

Sub-scales	No of items	Mean (M)	Std. D (SD)
Perceived desirability	4	4.56	1.287
Perceived feasibility	3	3.73	1.242
Total	7	4.21	1.149

in Table 3. The influence of demographics of students on their level of IEE is significant in the entrepreneurial family background (Sig = .009 < .05), entrepreneurial experience (Sig = .046 < .05), perception of employment environment (Sig = .000 < .05), and perception of the entrepreneurial environment (Sig = .000 < .05). However, the other demographics such as gender, faculty, year of study, IEE course, academic performance, participation in student cadres and IEE competition are not significant in influencing IEE.

4.3 The Level of EI Among the Undergraduates

The third research question in this study is 'What is the level of EI among undergraduates?' To answer this question, descriptive analysis is also used. EI is measured by two dimensions: perceived desirability and perceived feasibility. Table 4 shows the distribution of means and standard deviations for the level of EI among undergraduates. The overall level of EI (*M* = 4.21) among the undergraduates is medium (refer to Table 1). Perceived desirability is much higher than perceived feasibility, with a difference of about 0.8.

4.4 Differences in EI Level Based on Different Demographic Variables

The fourth research question is, 'Do demographic variables influence EI?'. It can be seen from Table 5 that the influences of gender (Sig = .012 < .05), academic performance (Sig = .029 < .05), participation in student cadres (Sig = .004< .05), entrepreneurial family background (Sig = .000 < .05), entrepreneurial experience (Sig = .000 < .05), perception of employment environment (Sig = .000 < .05), and perception of employment environment (Sig = .000 < .05) on EI are significant. In comparison, only EI among those who have attended or not attended the IEE course is not significantly different. It is good to note that the respondents must participate in the university IEE program but not necessarily attend a designated IEE course as the IEE program also contains other IEE activities.

4.5 Correlation Between IEE and EI

The fifth research question is, 'Is there any relationship between IEE and EI?'. To answer this question, a correlation coefficient score is used. The correlation coefficient *r* score showed the strength of the relationship, while the *p*-value showed the significance level. The greater the absolute value of the correlation coefficient, the stronger the correlation. The closer the correlation coefficient is to 1 or -1, the stronger the correlation degree, while the closer the correlation coefficient is to 0, the weaker the correlation degree is.

Table 5. *EI Level based on Different Demographic Variables (n=827)*

Demographic Variables	Items/Indicators	N	F	Sig.
Entrepreneurial Family Background	One of your parents, one of your siblings has an entrepreneurial experience.	357	.487	.000*
	None of the parents or siblings had any entrepreneurial experience.	470		
Entrepreneurial Experience	Entrepreneur	11	.155	.000*
	Non-entrepreneur	816		
Perception of the Employment Environment	Very optimistic	28	12.564	.000*
	Optimistic	192		
	General	66		
	Very pessimistic	205		
	Pessimistic	336		
Perception of Entrepreneurial Environment	Very good	25	11.409	.000*
	Good	266		
	General	432		
	Poor	91		
	Very poor	13		
Gender	Male	249	1.918	.012*
	Female	578		
IEE Course	Have not Attended an IEE Course	527	.147	.876
	Have Attended an IEE Course	300		

*Significant at p < .05.

Table 6. *Implication for R-Value*

R-Value	Implication
.8 < r < 1.0	High correlation
.6 < r < .8	Strong correlation
.4 < r < .6	Moderate correlation
.2 < r < .4	Weak correlation
.0 < r < .2	Very weak correlation or no correlation

Table 7. *Pearson correlations - IEE and EI (N=827)*

Variable	IEE	EI
IEE	1	
EI	.429**	1

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

According to Wu (2019), the meaning represented by the size of the r value is shown in Table 6.

Table 7 shows the correlation between IEE and EI. The overall correlation coefficient between IEE and EI is $r = 0.429$. The correlation is significant to the level of $p < .01$. This indicates a moderate positive correlation between IEE and EI. In other words, the level of IEE increases as EI increases.

4.6 Perceptions of students towards IEE

The sixth research question is "What are the perceptions of students towards IEE?". To answer this, the study interviewed twenty-three (23) students who had completed the questionnaire earlier. These students were chosen for the interview because they came from all the different faculties in the university, they were of mixed gender, in different years at the university, and had different levels of IEE and EI.

5. RESULTS FROM INTERVIEW

The student's responses to the interview questions were audio-taped and then transcribed verbatim. The data was then thematically analyzed. From the analysis, it was found that three themes emerged: the quality of the teachers teaching IEE, the teaching method used to teach IEE, and the mistargeting of the objective of the IEE.

Theme 1: Teacher quality does not meet students' expectation

In general, students in this study felt that the teacher quality of IEE does not meet their expectations. Examples of related quotes are as follows:

"I do not feel that the teacher is special; it is that teacher in the class teaches like chanting [talk to himself, not interactive], it is not useful." (P14)

"And then he[teacher] is kind of, you know, a little bit more orthodox in the way he lectures, and then boring in the relative sense. He also does not have experience of entrepreneurship" (P15)

Theme 2: Teaching method used to teach IEE

Most students interviewed found that the teaching method of IEE at the university was uninteresting and did not do much to raise students' interest. The following are some examples of their comments;

"Well, I have attended the course, um, basically just [teacher provides] some theoretical knowledge, and then it is an online course, so I am not very impressed with it." (P3)

"Is it a career guide for innovation and entrepreneurship, or another thinking training? I think it is more of the second. I listened a little bit, and then I stopped. Too monotonous, just talk, no sense." (P11)

Theme 3: Mistargeting of the objective of the IEE

The majority of the students felt that the content of the IEE program was not targeted and did not align or focused with students' Majors, so it has failed to attract students' attention towards innovation and entrepreneurship.

"Yes, I think these lectures may be that they are aimed at each college and maybe too, too unified [standardized] in content. The fact is each college and each Major is not the same. Is the unified thing the best way to do things? I think there is no great sense of that kind of guidance, we can't standardized IEE program like this." (P8)

"It is too generic. One set for all Majors. It feels too general for everyone. It feels the same." (P21)

5.1 Suggestions to improve IEE and EI

The seventh research question is 'How to improve IEE and EI?' In this study, students were also asked to give suggestions on how to improve both IEE and EI. The following discussion revealed the suggestions given by these students.

5.1.1 Teachers need to have entrepreneurship experience

From the interview, the students in this study feel that teachers of IEE need to have both genuine enthusiasm for entrepreneurship and the necessary experience of entrepreneurship. These teachers need to have profound teaching ability, good at innovation, the ability to turn entrepreneurship into reality, and personal charm to attract students. In other words, they must also display EI. The following quotes provide evidence for students' feedback:

"Well, I think the teacher of this kind of course, first of all, has to have his ideas about entrepreneurship, he must have EI so that he can teach his ideas to students, and then his teaching style can be livelier and more interesting, so that

students who have not been exposed to entrepreneurship, um, have a greater interest." (P3)

"I think IEE teachers should have an entrepreneurial identity, entrepreneurial consciousness, and entrepreneurial intention. Well, I think it is better to have the experience of innovation and entrepreneurship because he has the kind of personal practice, and he has the kind of sharing, which is the shared knowledge, which is some practical knowledge so that students can trust more." (P12)

"Work and innovation experience, these two conditions are both indispensable." (P7)

5.1.2 Integrate theoretical teaching and practical exercise

The IEE program at this university was carried out as a hybrid program; partly online and partly face-to-face. Although traditional face-to-face interaction still has an absolute advantage and is irreplaceable in the whole education process, the rapid development and advancement of information technology combined with face-to-face teaching in delivering IEE is imperative. Integrating theoretical study online and practical exercise offline could be a good way forward (Zhu & Shu, 2021). Through the organic combination of the two teaching modalities, students' learning can enter the state of deep learning, helping to improve the learning effect and promote EI along the way. This is reflected in the interviews of some students as follows:

"You can combine online and offline, you can watch videos of some IEE-related theories online, and then you can generate some practical cases for students to try physically." (P3)

"Well, is the combination of online and offline way should be better, during offline can organize a simulation for everyone to participate, this way gives everyone a practical experience that can affect EI." (P15)

5.1.3 Build a curriculum system deeply integrated with the Major

The IEE curriculum is fundamental for the success of a program. It is the way for colleges and universities to carry out the goal of talent cultivation. To achieve a leap in the quality of talent training, IEE should be integrated into the talent training program. One way to do that is by actively building an innovation and entrepreneurship curriculum system deeply integrated with professional education with each Major (Zhu & Shu, 2021). That is what some of the interviewees were hoping for, as cited by two of the students:

"I think it is possible because these students, in the first two years of university, may not have too much inkling for their

future career path planning, the university can combine [IEE and professional course] together, to stimulate the enthusiasm of the students for entrepreneurship, never mind if they have or no future planning of entrepreneurship, I think this kind of integration that can inspire them with the idea of entrepreneurship." (P15)

"The likelihood is to combine professional namely, then talk about later start a business, which area to start a business." (P19)

6. DISCUSSION

Although the government of China and in particular Chongqing University, where this study was carried out, have put great effort into planning and executing IEE, the undergraduates' IEE level is only moderate (M = 4.57). Student engagement in IEE is the lowest (M = 4.10). As Jin (2020) has reflected, it is unsurprising that the overall environment for IEE in universities still needs to be improved. Lin (2021) has also reiterated that although Chinese universities have gradually established a curriculum system in the field of IEE, university students still face many problems in IEE, possibly due to the monotonous teaching model and lack of entrepreneurial experience among teachers. These two factors in turn affect the effectiveness of IEE and subsequently, to a certain extent dampen the spirit of EI among students. The results from this study reflected similar problems during student interviews.

The level of EI among the undergraduates in the university is moderate (M = 4.21). The level of perceived feasibility in EI is particularly low. Respondents might have issues related to confidence thus, they could not see the feasibility of EI. The IEE experience provided by the university is insufficient to provide students with entrepreneurial ideas and better support for students to improve their perceptions of the feasibility of entrepreneurship. This is consistent with the research findings found by Liu (2016). He surveyed two thousand and eight (2,008) graduates of different types and levels of colleges and universities in eastern, central, and western China. He found that college students' EI level was low, basically at a medium level (M = 3.79, on a 6-point Likert scale). Incidentally, another study conducted in Bangladesh revealed similar results (Rahaman et al., 2020).

In this study, the overall correlation coefficient between IEE and EI is r = 0.429. It indicates a significantly positive but moderate correlation between IEE and EI. The higher the IEE level, the higher the EI level. This indicates that IEE could promote EI. This has also been confirmed in studies by Drost (2010), Peterman and Kennedy (2003), and Solomon et al. (2002). Thus, from the data obtained in this study, it appears that

it is beneficial to enhance IEE in universities, as IEE theoretically can impact EI.

In another research, Xie (2021) found that the performance of IEE is often influenced by several factors that include the following: the government's support for innovation and entrepreneurship activities of colleges and universities, students' good entrepreneurial attitudes, and the favorable entrepreneurial environment of colleges and universities. The current study expanded this exploration to include more personal related entrepreneurial factors such as entrepreneurial family background, personal entrepreneurial experience, perception of the employment environment, and perception of the entrepreneurial environment. These factors were significant to the level of IEE in this study. However, the other demographics, such as gender and attended IEE courses, are not significant in influencing IEE. This is inconsistent with a study by Miao (2020) who found students of different genders have different cognition of innovation and entrepreneurship. This may have something to do with the type of university and characteristics of the universities. However, the research object of Miao (2020) is a public university, while the research object of this study is a private university. More studies need to be conducted to ascertain the reasons for the difference in the findings.

The influence of students' demographics on their EI level is insignificant for those who attended or did not attend IEE courses. This seems to imply that IEE is not too crucial to develop EI. This finding is contrary to other results from other studies conducted by Qian and Wei (2021) and Robert (2017). Qian and Wei (2021) who investigated students who enrolled in the elective course "Know About Business (KAB)" at Nanjing University of Chinese Medicine, found that the IEE course had positive effects on inspiring students' entrepreneurial consciousness, EI, and entrepreneurial behavior. Robert (2017) on the other hand, examined the impact of a 150-minute divergent activity training session and new venture ideation exercise on openness to ideation and entrepreneurial intent in undergraduate college students enrolled in entrepreneurship courses. He found these exercises have a positive impact on openness to ideation and EI.

Triangulation with qualitative data revealed the existing problems of IEE could have affected the promotion of EI. Interview data attested to this as problems such as teacher quality and teaching method persisted might have caused the lower average EI and IEE. Ma et al. (2020) found that college students' IEEs must be implemented based on the theoretical knowledge of their psychological cognition and creative psychological development, and use certain teaching strategies so that it can play a

good role in guiding the cultivation of innovation and entrepreneurship spirit of college students.

7. CONCLUSION

In conclusion, on one hand, the IEE level of the students in this university and the EI level of students is only moderate; on the other hand, IEE is correlated to EI. From the open-ended questions and interviews, it was found that the reason for the low level of EI lies in the problems of the IEE of this university, namely the low quality of teachers, the uninteresting teaching model, and the lack of targeted curriculum setting. It is suggested that sustainable EI can be developed in the future by building the capacity of teachers in entrepreneurship, skillfully combining theoretical teaching with practical exercise, and building a curriculum system deeply integrated with students' Majors.

7.1 Recommendations

This study recommends the following to improve IEE and increase EI among university students. Based on opinions from students regarding teacher quality, the researcher put forward a concept of "three-tier" teachers. The first-tier teacher is a basic tutor. Teachers in this study are mainly the basic tutor type; they mainly guide students on relevant knowledge. The second-tier teacher is the cultivating mentor type; these teachers have theoretical and practical knowledge; besides teaching knowledge, they can provide consultation and guidance on project planning, opening guidance, project evaluation, market analysis, operation management, financing credit, policies, regulations, etc. The third-tier teacher is the incubation mentor type. The corporate mentor is the incubation mentor who guides practical operation and troubleshooting development difficulties to help students turn their ideas into reality. University needs both the 2nd or 3rd-tier category teachers who would be better able to serve students' innovation and entrepreneurship needs.

7.2 Limitations of the Study

Similar to the other studies, there are several limitations that this study is subjected to such as time, energy and financial constraints. The findings from study were for this particular private university. Since this study used a mixed method, where the data were collected through questionnaires and interviews, there was no way the researcher could ensure that the respondents have given their honest opinions when answering both the questionnaire and the interview questions.

Declaration of Conflicting Interests

The author/s declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article. This article is the sole work of the author/s and has not been presented or published elsewhere.

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✓ The submission adheres to word count and APA 7 stylistic and bibliographic requirements; and
✓ All identifying information has been removed from all documents and file names.

Checklist for Manuscript Submission

- Cover letter
- Declaration form
- Referral form
- Manuscript structure

(Title, Author details and affiliation, Abstract, Keywords, etc. using the **IMRAD** style). See below explanation.

Manuscript Types

Horizon accepts submission of mainly **four** types of manuscripts for peer-review.

1. **REGULAR ARTICLE**
   Regular articles are full-length original empirical investigations, consisting of introduction, materials and methods, results and discussion, conclusions. Original work must provide references and an explanation on research findings that contain new and significant findings.

   Size: Generally, these are expected to be **around 6,000** words (excluding the abstract, references, tables and/or figures), a maximum of 80 references, and an abstract of 100–150 words.

2. **REVIEW ARTICLE**
   These report critical evaluation of materials about current research that has already been published by organizing, integrating, and evaluating previously published materials. It summarizes the status of knowledge and outline future directions of research within the journal scope. Review articles should aim to provide systemic overviews, evaluations and interpretations of research in a given field. Re-analyses as meta-analysis and systemic reviews are encouraged. The manuscript title must start with "Review Article".

Size: These articles do not have an expected page limit or maximum number of references, should include appropriate figures and/or tables, and an abstract of 100–150 words. Ideally, a review article should be **around 3,000 words**.

3. **Short communications**

   They are timely, peer-reviewed and brief. These are suitable for the publication of significant technical advances and may be used to:

   (a) Report new developments, significant advances and novel aspects of experimental and theoretical methods and techniques which are relevant for scientific investigations within the journal scope;

   (b) Report/discuss on significant matters of policy and perspective related to the science of the journal, including 'personal' commentary;

   (c) Disseminate information and data on topical events of significant scientific and/or social interest within the scope of the journal.

   The manuscript title must start with "*Brief Communication*".

   Size: These are usually **between 800 to 1,500 words** and have a maximum of three figures and/or tables, from 8 to 20 references, and an abstract length not exceeding 150 words. Information must be in short but complete form and it is not intended to publish preliminary results or to be a reduced version of Regular or Rapid Papers.

4. **Others**

   Book reviews, Brief reports, case studies, comments, concept papers, Letters to the Editor, and replies on previously published articles may be considered subject to the discretion of the journal editors.

   PLEASE NOTE: NO EXCEPTIONS WILL BE MADE FOR PAGE LENGTH.

Manuscript Format

Horizon emphasizes on the linguistic accuracy of every manuscript published. Articles must be in English and they must be competently written and argued in clear and concise grammatical English. Contributors are strongly advised to have the manuscript checked by a colleague with ample experience in writing English manuscripts or a competent English language editor.

- **File type**: MS WORD; Font-type: Times New Roman, Size 12 pts and 1.5 line-spaced.
- **Word count**: Adhere to the stipulated word-count. Regular articles: not more than 6,000 words, and Review articles: 3,000 words max. Headings: Ensure that they are clearly formatted throughout.
- **Manuscript structure**: The journal uses IMRAD style.
- **Title**: Should be attractive and indicative. No more than 30 words.
- **Running-head**: No more than 40-character spaces.
- **Abstract**: Should describe your entire study at a glance. No more than 150 words (maximum).
- **Keywords**: Must provide as many as 8.
- **Introduction**: It should provide sufficient background about the work carried out.
- **Methodology**: This should include details of any experiments conducted or data collected.
- **Results and Discussion**: This section should answer the question you raised in the introduction.
- **Conclusion**: Here you should include your findings.
- **Results and Discussion**: This section should answer the question you raised in the introduction.
- **Conclusion**: Here you should include your findings.
- **Competing Interests Statement**: e.g. The authors have declared that no competing interest exists.
- **Acknowledgements**: This usually follows the Discussion and Conclusions sections. Its purpose is to thank all of the people who helped with the research but did not qualify for authorship.

  This could be someone from a sponsoring institution, a funding body, other researchers, or even family, friends or colleagues who have helped in the preparation. Individuals and entities that have provided essential support such as research grants and fellowships and other sources of funding should be acknowledged. Contributions that do not involve researching (clerical assistance or personal acknowledgements) should not appear in acknowledgements.

- **References**: Lists every source (no limitation) but list those that may be of interest to readers and are current. "**Each reference cited in text must appear in the reference list**, and each entry in the reference list must be cited in text". There is no reason to include uncited sources in the reference list. **Cite what you use**, use what you cite. The references are to be alphabetized by the fist author's last name, or (if no author is listed) list by the organization or title. Ensure that in-text

citations and references are complete and consistently styled and formatted as per the journal's in-house style (APA Edn. 6 or 7) failing which your article will **not be accepted for peer-review**. You may refer to the Publication Manual of the American Psychological Association for further details (http://www.apastyle.org/). You may generate APA citations here: https://www.scribbr.com/apa-citation-generator/new/article-journal/ A video is available for your viewing pleasure at https://vimeo.com/191910171

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DOIs: Include the DOI at the very end of the APA reference entry. In the APA 7th edition, the DOI is preceded by 'https://doi.org/'.

APA citation example (7th edition)

Bakari, R. (2022). The relations among social media addiction, self-esteem, and life satisfaction in university students. Horizon J. Hum. Soc. Sci. Res., 4(1), 176–186. https://doi.org/10.37534/bp.jhssr.2022.v4.n1.id1148.p25

- **BIOGRAPHICAL STATEMENT OF AUTHORS**: Authors should submit a biographical statement to be included in the manuscript to be published by JHSSR. The biographical statement should include the author(s) full name, affiliation, email. In addition, it is also appropriate to discuss your personal history, academic program and/or field placement, and interest in the article's subject. The biographical statement may **not exceed 75 words**. The author biography should be **separately** accompanied with a **high-resolution picture** *(in JPEG file format)* of each author listed in this manuscript as this would be published along with the article *(not pasted in a word file)*.

- **APPENDIX**: Includes additional data.

- **FOOTNOTES**: Include necessary additional information.

- **TABLES, FIGURES, GRAPHS**: Are complete, clear, attractive and of high-resolution. Avoid too long tables. Do not forget Table titles, figure and graph legends, and image captions. All Figures/photographs to have a reference to the original source, unless created by the author.

Manuscript Structure

Most scientific papers are prepared according to a format called **IMRAD**. The term represents the first letters of the words Introduction, **M**aterials and Methods, **R**esults, **A**nd, **D**iscussion. IMRAD is simply a more 'defined' version of the "IBC" [Introduction, Body, Conclusion] format used for all academic writing. IMRAD indicates a pattern or format rather than a complete list of headings or components of research papers; the missing parts of a paper are: *Title, Authors, Keywords, Abstract, Results & Discussion, Conclusions, Competing interests' statement, Acknowledgement, References and Biographical Statement of Author(s)*. Additionally, some papers include Appendices or Supplementary data.

The *Introduction* explains the scope and objective of the study in the light of current knowledge on the subject; the *Materials and Methods* describes how the study was conducted; the *Results* section reports what was found in the study; and the *Discussion* section explains meaning and significance of the results and provides suggestions for future directions of research. The manuscript must be prepared according to the Journal's style.

Manuscript Organisation

Manuscripts for submission to Horizon should be organised in the following order:

Page 1: Running head or title (No more than 40-character spaces**).**
This page should **only** contain the running title of your paper. The running title is an abbreviated title used as the running head on every page of the manuscript. The running title should not exceed 60 characters, counting letters and spaces.

Page 2: This page should contain the following:
Author(s) and Corresponding author information.
This page should also contain the **full title** of your paper not exceeding 30 words, with name(s) of all the authors, institutions and corresponding author's name, institution and full address (Street address, telephone number (including extension), hand phone number, and e-mail address) for editorial correspondence. First and corresponding authors must be clearly indicated.

The names of the authors stated must be **in full** (no initials).
e.g. Victor Terence King, Percival Bion Griffin, James William Chapman, Neelambar Hatti and Taher Badinjki.

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Authors' addresses. Multiple authors with different addresses must indicate their respective addresses separately by superscript numbers:

Aimee Henderson[1] and Nayan Kanwal[2]

[1]Department of English Studies, Texas University, Dallas, USA., [2]Department of the Deputy Vice Chancellor, Texas University, Dallas, USA.

A **list** of **number of black and white / colour figures and tables should also be indicated on this page.**

Page 3: Abstract
This page should **repeat** the **full title** of your paper with only the **Abstract** and **Keywords**.

Abstract: The abstract should be around 150-200 words for a Regular Paper and up to 100 words for a Short Communication.

Keywords: Not more than eight keywords in alphabetical order must be provided to describe the contents of the manuscript.

Page 4: Introduction
This page should begin with the **Introduction** of your article and followed by the rest of your paper.

Manuscript Style

The manuscript should be written using the **IMRAD** style of writing. Regular Papers should be prepared with the headings INTRODUCTION, MATERIALS AND METHODS, RESULTS AND DISCUSSION, CONCLUSIONS, ACKNOWLEDGEMENTS, REFERENCES, and SUPPLEMENTARY DATA (if available) in this order.
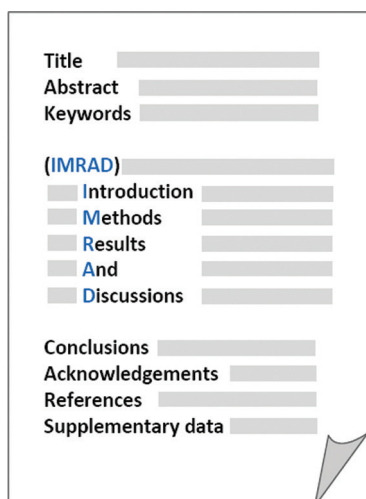
MAKE YOUR ARTICLES AS CONCISE AS POSSIBLE

Most scientific papers are prepared according to a format called IMRAD. The term represents the first letters of the words Introduction, Materials and Methods, Results, And, Discussion. It indicates a pattern or format rather than a complete list of headings or components of research papers; the missing parts of a paper are: Title, Authors, Keywords, Abstract, Conclusions, and References. Additionally, some papers include Acknowledgments and Appendices.

The Introduction explains the scope and objective of the study in the light of current knowledge on the subject; the Materials and Methods describes how the study was conducted; the Results section reports what was found in the study; and the Discussion section explains meaning and significance of the results and provides suggestions for future directions of research. The manuscript must be prepared according to the Journal's instructions to authors.

Equations and Formulae

These must be set up clearly and should be typed double spaced. Numbers identifying equations should be in square brackets and placed on the right margin of the text.

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All tables should be prepared in a form consistent with recent issues of Horizon and should be numbered consecutively with Roman numerals. Explanatory material should be given in the table legends and footnotes.

When a manuscript is submitted for publication, tables must also be submitted separately as data - .doc, .rtf, Excel or PowerPoint files- because tables submitted as image data cannot be edited for publication and are usually in low-resolution.

Figures & Photographs

Submit an **original** figure or photograph. **All Figures and/or photographs must include a reference to the original source**, unless you have created it yourself. Line drawings must be clear, with high black and white contrast. Each figure or photograph should be

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- **Figure captions must be placed at the bottom of each figure.**
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- All Figures/ photographs **must include a reference to the original source**, unless you have created it yourself.

General Guidelines

<u>Abbreviations</u>: Define alphabetically, other than abbreviations that can be used without definition. Words or phrases that are abbreviated in the introduction and following text should be written out in **full the first time** that they appear in the text, with each abbreviated form in parenthesis. Include the common name or scientific name, or both, of animal and plant materials.

<u>Authors' Affiliation</u>: The primary affiliation for each author should be the institution where the majority of their work was done. If an author has subsequently moved to another institution, the current address may also be stated in the footer.

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Spelling: The journal uses American or British spelling and authors may follow the latest edition of the Oxford Advanced Learner's Dictionary for British spellings. **The spellings must be consistent with the same style throughout the manuscript**.

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JHSSR aspires to advance research in the field of social sciences through a collection of quality, relevant, and advanced interdisciplinary articles in the fields associated with the scope of the journal.

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Horizon Journal of Humanities & Social Sciences Research
Vol. 6 (1) Jul. 2024

Contents