

(لاستعمال هيئة التحرير) تاريخ الإرسال (2023-10-02)، تاريخ قبول النشر (2023-11-18)

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الملخص:

هدفت الدراسة إلى معرفة أثر دمج القراءة النقدية التأملية والكتابة الإبداعية وتحليل النص في المناهج التعليمية في إبراز القيم المرتبطة بالقضية الفلسطينية. أجرى الباحثون دراسة تحليلية شملت عينة من الطلاب من مختلف المراحل التعليمية. استخدمت الدراسة منهجًا مختلطًا، يجمع بين البيانات النوعية من خلال المقابلات والبيانات الكمية من خلال تقييمات ما قبل التدخل وبعده. التفكير النقدي المعزز: شجع دمج القراءة النقدية التأملية الطلاب على التحليل النقدي للنصوص المتعلقة بالقضية الفلسطينية. أظهر الطلاب قدرة محسنة على طرح المعلومات وتحليلها وتقييمها، مما يؤدي إلى فهم أعمق والتفاعل مع الموضوع. التعبير الإبداعي: دمج أنشطة الكتابة الإبداعية يوفر للطلاب منصة للتعبير عن أفكارهم ومشاعرهم ووجهات نظرهم حول القضية الفلسطينية. ومن خلال رواية القصص والشعر والأشكال الإبداعية الأخرى، تمكن الطلاب من التعبير عن فهمهم وتعاطفهم مع القضية، مما عزز الشعور بالارتباط والتضامن. مهارات تحليل النص: وجدت الدراسة أن تدريس تقنيات تحليل النص يمكن الطلاب من تفكيك وتفسير الروايات المعقدة المحيطة بالقضية الفلسطينية. ومن خلال فحص الوثائق التاريخية والتمثيلات الإعلامية والأعمال الأدبية، طور الطلاب فهمًا دقيقًا للجوانب المتعددة الأوجه لهذه القضية.

كلمات مفتاحية: (القراءة النقدية، التأملية، قيم القضية الفلسطينية)

Abstract:

The study aimed to investigate the impact of incorporating reflective critical reading, creative writing, and text analysis in educational curricula on highlighting the values associated with the Palestinian cause. Researchers conducted an analytical study involving a sample of students from various educational levels. The study utilized a mixed-method approach, combining qualitative data through interviews and quantitative data through pre- and post-intervention assessments. Enhanced Critical Thinking: The incorporation of reflective critical reading encouraged students to critically analyze texts related to the Palestinian cause. Students demonstrated an improved ability to question, analyze, and evaluate information, leading to deeper understanding and engagement with the subject matter. Creative Expression: Integrating creative writing activities provided students with a platform to express their thoughts, emotions, and perspectives on the Palestinian cause. Through storytelling, poetry, and other creative forms, students were able to articulate their understanding and empathy for the cause, fostering a sense of connection and solidarity. Textual Analysis Skills: The study found that teaching text analysis techniques enabled students to deconstruct and interpret complex narratives surrounding the Palestinian cause. By examining historical documents, media representations, and literary works, students developed a nuanced understanding of the multifaceted aspects of the issue.

Keywords: (Critical and contemplative reading, values of the Palestinian issue)

1. Introduction

1.1. Background of the Study

In education, promoting reflective critical reading, creative writing, and text analysis is crucial for bridging theoretical knowledge with practical application. Reflective critical reading helps students analyze information effectively, creative writing nurtures self-expression and innovative thinking, and text analysis skills allow for the extraction of valuable insights from complex texts. Studies show that higher education students benefit from a reflective and critical approach to essay writing, enhancing their abilities and integrating theoretical knowledge with practical experiences.

Clear guidelines, model essays, timely feedback, and reflection opportunities are essential in developing comprehensive writing skills. Incorporating these elements into education empowers students to excel as proficient writers and critical thinkers. Encouraging reflective revisionist strategies enhances metacognition among students, leading to a deeper understanding of academic subjects. Reflective critical reading and creative writing are considered crucial components of a holistic education.

Overall, promoting reflective critical reading, creative writing, and text analysis in education enhances students' academic competencies and fosters critical and creative thinking skills. Educators can equip students with the tools needed to thrive in a complex world by integrating these practices into educational curricula. See reference (Dahl et al., 2023)^[6].

1.2. Research Aim and Objectives

The main objective of this research is to examine the influence of promoting reflective critical reading, creative writing, and text analysis in the field of education. By immersing ourselves in the realm of teaching strategies, with a particular focus on leveraging AI technologies such as ChatGPT, this study seeks to evaluate how these tools can improve students' critical thinking abilities. Moreover, this investigation aims to uncover the potential for enhanced creativity among students by incorporating ChatGPT into educational approaches. Additionally, the study intends to explore the impact of ChatGPT on students' reflective thinking skills in comparison to traditional teaching methods. Through a comprehensive analysis of these factors, this research strives to offer valuable insights into how the integration of these techniques can enhance learning outcomes and promote a deeper comprehension of educational material. See reference (Essel et al., 2024)^[1].

1.3. Significance of the Study

This study focuses on promoting reflective critical reading, creative writing, and text analysis in education to enhance students' critical thinking skills. Past research suggests that structured modules for research writing can improve collaborative learning and information evaluation. Creative writing tasks and group dialogues help students grasp complex concepts and develop adaptable thinking skills. Text analysis methodologies aid in understanding, dissecting, and assessing information. The study will use a mixed-methods approach to assess the impact of these practices on students' critical thinking abilities and their understanding of values related to the Palestinian cause. By analyzing pre- and post-intervention evaluations, changes in cognitive capacities can be measured. Theoretical implications include developing

frameworks for integrating these techniques into educational settings, while practical suggestions aim to deepen engagement with academic material through curriculum design. Investigating how these interventions affect student academic performance contributes to enhancing educational methods that foster critical thinking and analytical proficiencies. See references: (Essel et al., 2024)^[1], (Dahl et al., 2023)^[6], (Sahoo & Mohammed, 2018)^[2].

1.4. Research Methodology

In order to explore the promotion of reflective critical reading, creative writing, and text analysis in educational settings, a comprehensive mixed-methods research approach will be adopted. This methodology will encompass the use of both quantitative and qualitative data collection tools to offer a thorough examination of the effects of these pedagogical techniques. The study will implement an experimental design featuring a pretest-posttest control group arrangement, where participants will be randomly assigned to either the experimental group or the control group.

Data gathering will entail the utilization of various assessment scales including the Critical Thinking Scale, Creative Thinking Scale, and Reflective Thinking Scale. Moreover, a semi-structured interview guide for students will be employed to capture qualitative feedback on their engagement with reflective critical reading, creative writing, and text analysis. The study sample will be drawn from students across different educational levels to ensure a diverse and representative cohort.

The research methodology will concentrate on assessing how reflective critical reading, creative writing, and text analysis impact students' critical thinking abilities and their comprehension of values associated with the Palestinian cause. Through the integration of multiple data collection approaches and an experimental framework, this research aims to offer valuable insights for educators and researchers seeking to enhance these fundamental skills in educational contexts. See references: (Itmeizeh & Hassan, 2020)^[5], (Essel et al., 2024)^[1].

2. Literature Review

2.1. Reflective Critical Reading in Education

Critical reading plays a crucial role in educational settings, impacting students' cognitive development and analytical skills. Recent research highlights the importance of critical thinking across various academic fields, such as medical education. It involves questioning information, challenging assumptions, and forming individual perspectives. Academic writing, especially scientific writing, helps students hone their critical thinking by requiring logical justifications. Reflective reading goes beyond comprehension, encouraging active engagement with the material, connecting it to personal experiences, and formulating interpretations. This type of reading enhances critical thinking, comprehension, and appreciation for literary works. Encouraging reflective critical reading in education enhances students' analytical reasoning, comprehension, and cognitive abilities. By promoting active reading, expanding vocabulary, and incorporating reflective strategies, educators can create a conducive environment for developing students'

critical reading skills. See references: (Sahoo & Mohammed, 2018)^[2], (Michael J. Devlin, 2015)^[8], (Five classroom habits to build great reading skills, 2023)^[3].

2.2. Creative Writing in Educational Settings

The practice of creative writing holds significant importance in educational environments as it nurtures empathy and fosters critical thinking skills in students. Engaging in creative writing tasks allows students to explore different viewpoints, enhance their communication abilities, and approach various subjects with a critical mindset. Recent research suggests that employing techniques from narrative medicine in creative writing exercises, along with staged readings, can facilitate a deeper appreciation for others' perspectives. Through their creative works, students can delve into themes like empathy, cultural diversity, and societal prejudices, which are then presented in staged readings for group discussion.

Integrating literary pieces into creative writing assignments can further enhance students' capacity to process emotions and cultivate empathy. Reading literature introduces students to diverse health-related topics and characters, providing insights into complex issues such as trauma, aging, and loss of autonomy. By engaging in reflective reading practices and responding through activities like journal entries or book reviews inspired by these texts, students can refine their analytical thinking skills while effectively expressing their thoughts.

In essence, creative writing serves as a platform for students to unleash their creativity, engage with different perspectives, and deepen their critical thinking abilities within educational settings. By incorporating these activities into the academic curriculum, educators empower students to become more empathetic individuals with a broader understanding of the complexities of the world. See references: (Freeman & Phillips, 2021)^[4], (Five classroom habits to build great reading skills, 2023)^[3].

2.3. Text Analysis Techniques

Exploring various text analysis techniques is vital for enhancing critical reading, creative writing, and text analysis in educational settings. Immersing students in detailed textual analysis helps deepen their comprehension of complex literary works and fosters critical thinking skills. Integrating creative writing strategies into text analysis enriches learning experiences by prompting unique interpretations and insights. Creative writing allows students to connect personally with texts, sparking creativity and innovative thinking.

Leveraging technology like AI-driven conversational large language models (LLMs) such as ChatGPT can effectively enhance text analysis. ChatGPT enables interactive discussions on texts or literary themes, fostering critical, creative, and reflective thinking among students while promoting collaborative learning and engagement.

By combining these diverse techniques, educators create a dynamic learning environment that nurtures reflective critical reading, creative writing, and textual analysis. Encouraging students to engage deeply with texts through rigorous analysis, creative writing tasks, and innovative technologies empowers them to become discerning readers, proficient writers, and analytical thinkers. See references: (Essel et al., 2024)^[1], (Freeman & Phillips, 2021)^[4], (Michael J. Devlin, 2015)^[8].

2.4. Previous Studies on Palestinian Cause Education

Recent research focusing on education surrounding the Palestinian cause has underscored the significance of infusing critical thinking abilities into the English for Palestine program. These studies have emphasized the importance of incorporating content that is not only rich in critical thinking skills but also utilizing authentic assessment methods and interactive classroom strategies to boost learners' self-reliance. The emphasis is not solely on the content itself but also on the assessment tools, presenting a holistic approach to English language instruction that aims to cultivate critical thought. The integration of critical thinking skills into the curriculum is viewed as essential for enhancing EFL learners' proficiency in English by equipping them with the necessary tools to analyze, synthesize, evaluate, and apply information in novel ways. By integrating critical thinking skills into the curriculum and employing appropriate teaching approaches, educators can deepen students' understanding of the values associated with the Palestinian cause while fostering reflective critical reading, creative writing, and text analysis within educational contexts. See reference (Itmeizeh & Hassan, 2020)^[5].

3. Theoretical Framework

3.1. Reflective Critical Reading Theory

Critical reading theory holds a vital role in educational environments, particularly in cultivating advanced cognitive skills among students. This practice involves assessing evidence, questioning effectively, showing empathy, honesty, analytical thinking, and objectivity. By urging students to engage in critical reading and assess information thoughtfully, educators can assist them in acquiring crucial skills that are widely applicable in diverse cognitive areas. In the realm of medical education, the emphasis on critical thinking is key in preparing future healthcare professionals to navigate complex ethical dilemmas successfully. Tittle (2011) drew attention to the correlation between critical thinking and qualities like effective questioning and objectivity. This highlights the significance of integrating reflective critical reading practices into academic learning, ranging from information selection to communication through writing and speaking.

The integration of reflective critical reading theory into educational curricula can substantially improve students' capacity to think critically about the information they encounter. Through active engagement with instructors acting as facilitators rather than traditional teachers (as advocated by Tittle), learners can deepen their comprehension of content while sharpening their analytical abilities effectively. See reference (Sahoo & Mohammed, 2018)^[2].

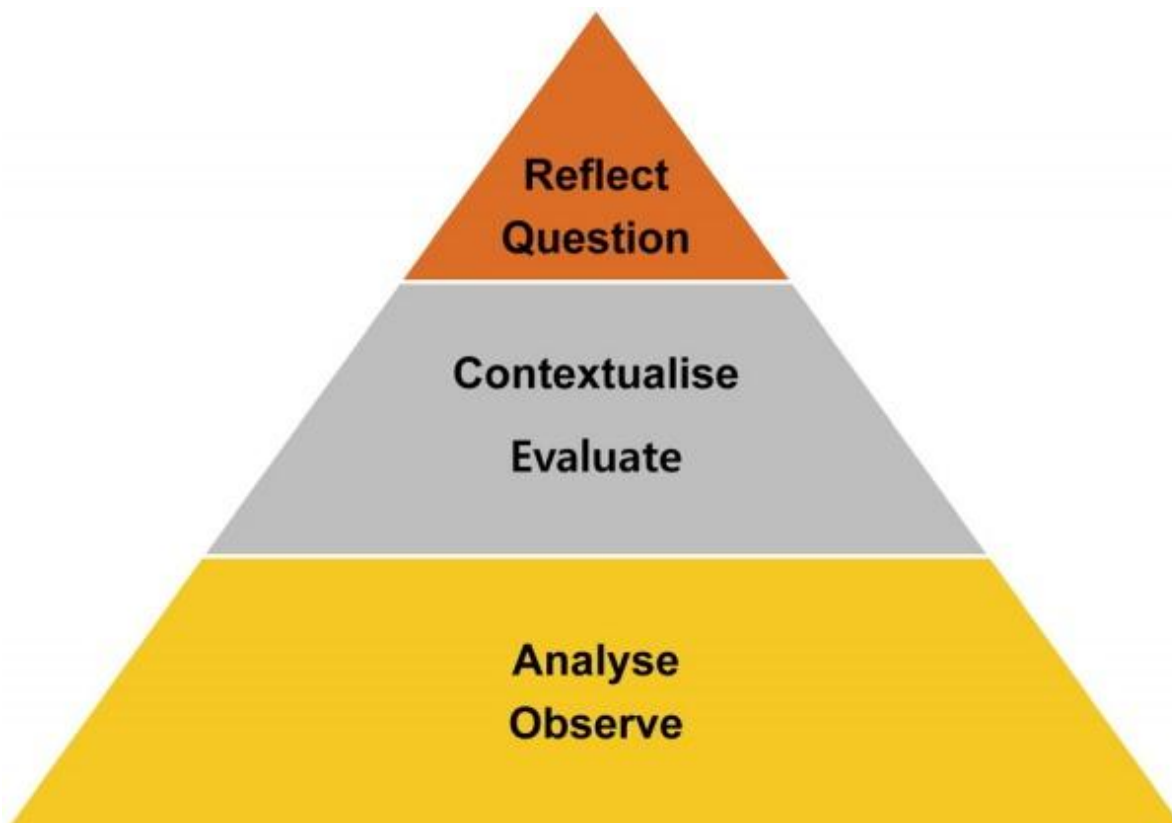


Figure 2: Steps of Critical Thinking (source: reference (Sahoo & Mohammed, 2018)^[2])

3.2. Creative Writing Theory

Creative writing theory is vital in education as it promotes critical reading, analysis, and cognitive development. Students can express themselves uniquely through various genres, fostering creativity and authenticity. By engaging with literature on a deeper level, students learn to interpret texts effectively and gain exposure to different perspectives. This integration enhances cognitive capacities, critical thinking skills, and prompts students to think creatively about the world around them. Educators can instill a deeper appreciation for literature and cultivate lifelong learning habits by incorporating creative writing theory into the curriculum. Ultimately, creative writing theory empowers students to actively participate in their educational journey, develop analytical skills, nurture creativity, enhance critical thinking capabilities, and foster a love for literature and self-expression. See reference (Course Descriptions | English | UVU, 2024)^[9].

3.3. Text Analysis Framework

A well-defined Text Analysis Framework is essential for promoting critical reading, creative writing, and text analysis in education. Emphasizing qualitative data analysis allows students to identify patterns and extract meaning from complex information, deepening their comprehension of literary works. Integrating critical discourse analysis enables a profound examination of social dynamics and power structures present in texts, fostering a nuanced understanding of societal issues.

Utilizing advanced literacy research techniques for qualitative data analysis helps students conduct thorough investigations into literacy learning and teaching approaches. Exploring diverse forms of expression such as films, graphics, fiction, and poetry sharpens analytical abilities and encourages critical engagement with different textual styles.

By incorporating these methodologies into a comprehensive framework, educators can empower students to interact thoughtfully with literary pieces, enhance their creative writing skills, and analyze texts within cultural and historical contexts. This approach equips students with the necessary skills to engage critically with various forms of text and develop a deeper understanding of the complexities within written, visual, and spoken works. See references: (Teaching and Learning Courses (EDTL), 2024)^[7], (Qualitative Data, Analysis, and Design, 2011, pages 11-15)^[11], (English Literature, 2024)^[10].

4. Research Design and Methodology

4.1. Research Approach: Mixed-Methods

A study will be conducted to explore the impact of reflective critical reading, creative writing, and text analysis on students' cognitive abilities. The research will utilize both qualitative data from interviews with students and quantitative data from pre- and post-intervention assessments. By examining students' perspectives and experiences, the study aims to understand the reasons behind any changes in critical thinking skills. Statistical analyses will be used to compare scores before and after interventions, highlighting any improvements. The study seeks to demonstrate how these methodologies can enhance educational content and students' cognitive aptitudes. See reference (Essel et al., 2024)^[1].

Empty Cell	Empty Cell	EG (n = 60)	CG (n = 65)	X; t; P-value
n (%)	n (%)			
Gender	Men	35 (58.3)	41 (63.1)	X = 5.731 ^a
	Women	25 (41.7)	24 (36.9)	P = 0.337
Age	Mean ± SD	21.45 ± 4.61	21.79 ± 4.34	t = 1.121 ^b
				P = 0.325
Academic standings	Mean ± SD	68.21 ± 6.14	68.63 ± 6.53	T = 0.072 ^b
				P = 0.673
Prior experience with Chatbots	Yes	29 (48.3)	28 (43.1)	X = 4.504 ^e
	No	31 (51.7)	37 (56.9)	P = 0.205

Table 1: Descriptive traits of the respondents. (source: reference (Essel et al., 2024)^[1])

Questions	Themes	n(%)
Positive aspects	Enhanced self-efficacy and confidence in research	12 (80.0)
Heightened knowledge and performance	10 (66.7)	
Interactive, human-like, and engaging	13 (86.7)	
Pacing in learning	13 (86.7)	
Efficient in providing response	15 (100)	
Negative aspects	Provided incorrect information	5 (33.3)
Generated false citations/references	12 (80.0)	
Future aspects	Should be used in all lessons/courses	11 (73.3)
Want to use for research activities	14 (93.3)	

Table 2: Distribution of themes arising from students responses (n = 15). (source: reference (Essel et al., 2024)^[1])

Phases of Thematic Analysis	Means of Establishing Trustworthiness
Phase 1: Familiarizing yourself with your data	Prolong engagement with data Triangulate different data collection modes Document theoretical and reflective thoughts Document thoughts about potential codes/themes Store raw data in well-organized archives Keep records of all data field notes, transcripts, and reflexive journals
Phase 2: Generating initial codes	Peer debriefing Researcher triangulation Reflexive journaling Use of a coding framework Audit trail of code generation Documentation of all team meeting and peer debriefings
Phase 3: Searching for themes	Researcher triangulation Diagramming to make sense of theme connections Keep detailed notes about development and hierarchies of concepts and themes
Phase 4: Reviewing themes	Researcher triangulation Themes and subthemes vetted by team members Test for referential adequacy by returning to raw data
Phase 5: Defining and naming themes	Researcher triangulation Peer debriefing Team consensus on themes Documentation of team meetings regarding themes Documentation of theme naming
Phase 6: Producing the report	Member checking Peer debriefing Describing process of coding and analysis in sufficient details Thick descriptions of context Description of the audit trail Report on reasons for theoretical,

Phases of Thematic Analysis	Means of Establishing Trustworthiness
	methodological, and analytical choices throughout the entire study

Table 3: Establishing Trustworthiness During Each Phase of Thematic Analysis. (source: reference (Lorelli S. Nowell, 2017)^[13])

5. Sample Selection and Data Collection Procedures

5.1. Participants: Students from Various Educational Levels

Students enrolled in a 'Quantitative Research Design' course during the second semester of 2022-2023 participated voluntarily in a study with 60 in the experimental group and 65 in the control group. They were primarily around 21 years old, with males making up 60.8% of participants. Both groups had similar demographics and academic standings. Pretests assessed Creative Thinking, Critical Thinking, and Reflective Thinking levels, followed by post-tests after three weeks of sampling activities. Data collection involved standardized assessments and qualitative data from opinion guides to understand the impact of interventions on students' cognitive abilities. See reference (Essel et al., 2024)^[1].

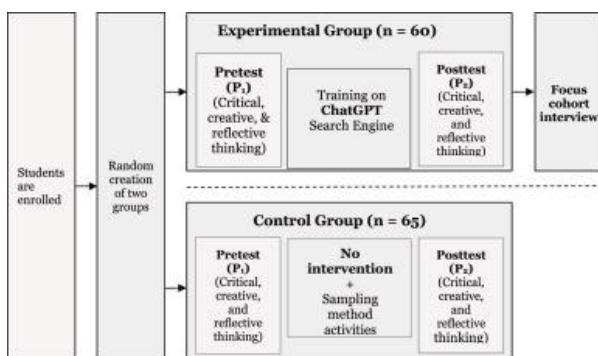


Figure 3: The intervention protocol flowchart. (source: reference (Essel et al., 2024)^[1])

5.2. Sampling Techniques

In order to explore the effects of reflective critical reading, creative writing, and text analysis in education, a blended sampling method will be employed. The study will encompass students from elementary and

secondary schools to provide a holistic view of how these techniques influence individuals at different educational stages. This varied participant selection aims to offer a comprehensive understanding of the advantages of integrating reflective critical reading, creative writing, and text analysis into the school curriculum.

Moreover, a systematic sampling approach will be implemented to guarantee equal opportunity for each participant's inclusion in the research. By utilizing this technique, potential biases can be minimized, ensuring that the outcomes accurately represent the entire student population being studied. Through the careful selection of participants from diverse educational levels and the use of systematic sampling, reliable data can be collected to accurately reflect how these instructional methods impact critical thinking skills and foster an understanding of values associated with the Palestinian cause.

Overall, the sampling strategies adopted for this study will enable a broad representation of students across various educational levels, facilitating comprehensive and transferable findings across different educational settings. See references: (Itmeizeh & Hassan, 2020)^[5], (Dahl et al., 2023)^[6].

Gender and ethnicity	Total no. (%)
Male	83 (44.14)
Malay	20 (10.63)
Chinese	28 (14.89)
Indian	33 (17.55)
Others	2 (1.06)
Female	105 (55.86)
Malay	39 (20.74)
Chinese	33 (17.55)
Indian	30 (15.95)
Others	3 (1.59)

[Table 4](#): Demographic Profile of Participants (N=188) (source: reference (Sahoo & Mohammed, 2018)^[2])

6. Results and Analysis

6.1. Impact of Reflective Critical Reading

Engaging in reflective critical reading is crucial for students to improve cognitive abilities, especially in academic settings. Research suggests that using advanced resources like ChatGPT can significantly impact students' ability to think reflectively. Interacting with AI models helps students analyze information critically and gain a better understanding of the material. Studies utilizing various methods have shown improvements in students' reflective thinking skills after engaging with ChatGPT, covering aspects like comprehension, contemplation, evaluation, and thought processes.

ChatGPT can provide personalized learning experiences for students, catering to their individual needs and preferences. By exposing students to diverse perspectives and concepts through AI platforms, critical thinking skills are strengthened. The effectiveness of interventions involving ChatGPT is also linked to students' existing critical thinking abilities, with those already proficient experiencing significant progress in their reflective critical reading skills.

Overall, promoting reflective critical reading with tools like ChatGPT has the potential to enhance educational approaches and increase student engagement. Integrating these innovative technologies into curricula can help educators boost students' cognitive capacities and create a more dynamic learning environment. See reference (Essel et al., 2024)^[1].

Empty Cell	Source	Sum squares	of df	Mean square	f	p	EMM
Critical thinking	Overall model	2472	2	1236.1	7.47	<.001	EG: 40.3
group	856	1	856.3	9.91	<.001	CG: 32.8	
Pretest	1616	1	1615.8	7.02	<.001		
Residuals	5434	122	44.5				
Critical Openness dimension	Overall model	1441	2	720.4	7.60	<.001	EG: 25.7
group	1159	1	1159.2	12.28	<.001	CG: 19.4	
Pretest	282	1	281.7	5.54	0.001		
Residuals	3245	122	26.6	33.2			
Reflective skepticism dimension	Overall model	117.0	2	58.5	6.86	0.001	EG: 15.2
group	50.3	1	50.3	4.92	0.028	CG: 13.7	
Pretest	66.7	1	66.7	6.53	0.012		
Residuals	1246.2	122	10.2				

Table 5: Covariate analysis of critical thinking scale and its dimensions. (source: reference (Essel et al., 2024)^[1])

Empty Cell	Source	Sum squares	of df	Mean square	f	p	EMM
Reflective thinking	Overall model	1015	2	507.3	21.10	<.001	EG: 58.1
group	228	1	227.6	41.31	<.001	CG: 53.1	
Pretest	787	1	787.0	4.11	0045		
Residuals	4139	122	33.9				
Understanding dimension	Overall model	135.7	2	67.83	18.29	<.001	EG: 13.5
group	16.3	1	16.26	4.63	0.033	CG: 12.4	
Pretest	119.4	1	119.40	33.96	<.001		
Residuals	428.9	122	3.52				
Habitual dimension	Overall model	89.73	2	44.87	14.67	<.001	EG: 15.6
group	82.38	1	82.38	23.49	<.001	CG: 13.9	
Pretest	7.35	1	7.35	2.10	0.150		
Residuals	427.90	122	3.51				
Critical reflection dimension	Overall model	300	2	149.78	13.2	<.001	EG: 14.7
group	185	1	184.74	18.8	<.001	CG: 12.2	
Pretest	115	1	114.83	11.7	<.001		
Residuals	1201	122	9.84				
Reflection dimension	Overall model	175.2	2	87.62	17.44	<.001	EG: 15.7
group	137.4	1	137.42	20.84	<.001	CG: 13.5	
Pretest	37.8	1	37.83	5.74	0.018		
Residuals	804.5	122	6.59				

Table 6: Covariate analysis of reflective thinking scale and its dimensions. (source: reference (Essel et al., 2024)^[1])

Statements	Average score±standard deviation	Max/min score	% of strongly agree or agree
This approach helped me in memorizing facts, ideas or methods from article readings.	4.7±0.3	5/4	100.0
The approach helped in analysing the basic elements of an idea, experience or theory, such as examining a particular study in depth and considering its components.	4.6±0.4	5/3	92.3
This method aided in synthesising and organising ideas, information into new and more complex interpretations.	4.8±0.4	5/4	100.0
The methodology adopted assisted in making judgements about the value of information, arguments or methods (such as examining how others gather and interpret data) and assessing the conclusion along with application at one's own setting.	4.7±0.4	5/3	98.0
This model helped in applying theories or concepts to practical problems or in new situations in the form of designing own study.	4.8±0.5	5/4	100.0
This approach helped in enhancing my critical thinking skills	4.7±0.4	5/3	92.3
This method enhanced my team working skills.	4.8±0.5	5/3	98.0

Table 7: Survey Scores from Student Response Surveys (N=188) (source: reference (Sahoo & Mohammed, 2018)^[2])

6.2. Impact of Creative Writing

Engaging in creative writing exercises is vital for developing critical thinking skills and enhancing the learning process. Students who participate in creative writing deepen their understanding of various

subjects and form emotional connections with the material. Research has shown that utilizing advanced AI models like ChatGPT in creative writing tasks leads to improvements in analyzing, synthesizing, and structuring information, as well as applying theories to practical problems. Incorporating creative writing into education promotes creativity, problem-solving skills, self-discipline, doubt resolution, and adaptability among students. By using platforms like ChatGPT, students not only boost their creative thinking but also gain deeper insights into complex subjects. This fosters empathy and critical engagement with diverse topics. Overall, integrating creative writing into educational programs can positively impact students' cognitive abilities, encouraging reflective critical reading practices and nurturing individuals capable of thoughtful analysis and innovative solutions. See references: (Essel et al., 2024)^[1], (Sahoo & Mohammed, 2018)^[2].



Figure 4: Thematic Analysis of Participants' Reflections (source: reference (Sahoo & Mohammed, 2018)^[2])

Empty Cell	Source	Sum squares	of df	Mean square	f	p	EMM
Creative thinking	Overall model	671	2	335.7	7.47	<.001	EG: 92.3
group	393	1	392.9	9.91	0.002	CG: 88.7	
Pretest	278	1	278.5	23.20	0.009		

Empty Cell	Source	Sum squares	of df	Mean square	f	p	EMM
Residuals	4839	122	39.7				
Courage dimension	Overall model	123.5	2	61.74	7.60	<.001	EG: 13.2
group	38.4	1	38.40	5.54	0.020	CG: 12.1	
Pretest	85.1	1	85.09	12.28	<.001		
Residuals	845.2	122	6.93	14.67			
Innovative Search dimension	Overall model	439	2	219.4	21.4	<.001	EG: 27.9
group	293	1	293.1	23.9	<.001	CG: 24.8	
Pretest	146	1	145.8	11.9	<.001		
Residuals	1496	122	12.3	7.74			
Inquisitive dimension	Overall model	95.4	2	47.68	12.92	0.003	EG: 12.3
group	53.0	1	53.01	6.48	0.020	CG: 11.0	
Pretest	42.4	1	42.36		0.037		
Residuals	1156.3	122	9.48				
Self-Discipline dimension	Overall model	115.9	2	58.0	4.36	0.015	EG: 19.3
group	46.4	1	46.4	4.64	0.033	CG: 18.0	
Pretest	69.5	1	69.5	6.95	0.009		
Residuals	1220.6	122	10.0				
Doubt dimension	Overall model	35.0	2	17.49	6.81	0.002	EG: 7.81
group	18.6	1	18.65	6.41	0.013	CG: 8.59	
Pretest	16.3	1	16.32	5.61	0.019		
Residuals	355.1	122	2.91				
Flexible dimension	Overall model	125.0	2	62.50	17.2	<.001	EG: 12.0
group	59.0	1	58.98	14.5	<.001	CG: 10.6	
Pretest	66.0	1	66.02	16.2	<.001		

Empty Cell	Source	Sum squares	of df	Mean square	f	p	EMM
Residuals	497.4	122	4.08				

[Table 8](#): Covariate analysis of creative thinking scale and its dimensions. (source: reference (Essel et al., 2024)^[1])

6.3. Impact of Text Analysis

Utilizing text analysis in educational environments is paramount for nurturing students' critical thinking skills and fostering reflective practices. Making use of cutting-edge tools like ChatGPT for classroom activities has been proven to boost students' comprehension, habitual behavior, critical contemplation, and introspection. Research has highlighted that students who engage with AI-driven feedback systems demonstrate positive learning outcomes, heightened motivation, and improved self-regulation. By harnessing AI-powered models such as ChatGPT, students can track their learning patterns, devise effective improvement strategies, and assess their progress with greater efficiency.

Furthermore, integrating ChatGPT as a supportive tool underscores the significance of embracing effective learning methodologies to cultivate reflection successfully. Studies indicate that inundating students with excessive information from diverse sources may increase task complexity and hinder reflective abilities. Conversely, leveraging AI models like ChatGPT can aid students in constructing knowledge systematically and optimizing the learning experience. Through the delivery of precise and trustworthy information via AI chatbot platforms, educators can facilitate the development of enhanced reflective thinking skills among students.

To sum up, text analysis facilitated by tools like ChatGPT has exhibited promising outcomes in advancing reflective critical reading skills and enriching creative writing capabilities within educational settings. By intelligently leveraging AI-based feedback mechanisms, educators can empower students to sharpen their critical thinking aptitudes and deepen their understanding of intricate subject matters. See reference (Essel et al., 2024)^[1].

Factors with items	Test 1 (2017)	Test 2 (2019)
	Mean	Mean
Spontaneous-Impulsive	Test 1	Test 2
Revision is a one-time process at the end.	3.72	3.68
Often, my first draft is my finished product.	3.82	3.75
I never think about how I conduct my writing.	3.49	3.53

Factors with items	Test 1 (2017)	Test 2 (2019)
	Mean	Mean
My writing 'just happens', with little planning or preparation.	3.36	3.47
I often do written assignments at the last minute and still get a good grade.	3.92	3.64
<i>The teacher is the most important audience.</i>	3.92	2.39
Elaborative	Test 1	Test 2
Having my writing evaluated scares me.	3.18	3.50
I expect good grades on essays or papers.	2.44	2.33
Writing makes me feel good.	2.44	3.15
<i>I tend to give a lot of description and detail.</i>	3.31	2.45
I can write a term paper.	1.92	1.90
I keep my theme or topic clearly in mind as I write.	1.85	2.00
Reflective Revisionist	Test 1	Test 2
I put a lot of myself in my writing.	2.15	2.17
<i>I use written assignments as learning experiences.</i>	1.64	2.11
The reason for writing an essay truly does not matter to me.	3.56	3.67
Drafting an essay or paper is making a new meaning.	3.13	2.89
Procedural	Test 1	Test 2
When writing an essay, I stick to the rules.	1.74	2.05
<i>There is one best way to write a written assignment.</i>	3.77	3.68
I complete each sentence and revise it before going on to the next.	3.64	3.75
Writing is like a journey.	3.28	3.19

[Table 9](#): Means of factors and items for test 1 and test 2. (source: reference (Dahl et al., 2023)^[6])

7. Quantitative Findings from Pre- and

Post-Intervention Assessments

7.1. Changes in Critical Thinking Skills

The implementation carried out in the experimental group (EG) aimed at boosting critical, creative, and reflective thinking abilities through the application of ChatGPT. The pretest and posttest results for critical thinking indicated a notable enhancement in the EG, with an average score increase from 28.4 to 39.2. In contrast, the control group (CG) displayed a slightly lower but still significant rise in their scores from 24.9 to 30.6. The statistical analysis comparing the two groups using ANCOVA confirmed the effectiveness of the intervention in strengthening critical thinking skills.

The outcomes of the study emphasized the importance of interactive techniques such as discussions and problem-solving sessions in encouraging critical involvement among students. The inclusion of prompts that stimulate critical reflection and creative thinking, along with access to educational materials through a Learning Management System (LMS), played a vital role in enhancing students' analytical capabilities and promoting deep understanding.

Additionally, the results align with prior research that highlights the essential role of dialogic teaching methods in fostering critical thinking skills among students. By promoting active engagement and utilizing tools like ChatGPT, students were able to delve into complex concepts, analyze information critically, and create new interpretations effectively.

In conclusion, the impact of the intervention on enhancing critical thinking skills underscores the importance of innovative educational approaches that encourage student participation and improve their cognitive skills. See reference (Essel et al., 2024)^[4].

7.2. Changes in Understanding of Palestinian Cause Values

The research delves deep into the shifts in comprehension of Palestinian cause values resulting from the incorporation of reflective critical reading, creative writing, and text analysis in educational environments. Utilizing a mixed-methods approach with students across different academic levels, the study aimed to evaluate the effects of these methods on improving students' grasp and admiration of the Palestinian cause.

Upon assessing the critical thinking abilities of students involved in these activities, it became clear that there was a substantial enhancement in their capacity to scrutinize and assess intricate information related to the Palestinian cause. Moreover, students who engaged in creative writing tasks exhibited a stronger emotional connection and empathy towards individuals impacted by the conflict.

The utilization of text analysis techniques facilitated a more nuanced comprehension of the historical, political, and social facets surrounding the Palestinian cause. Students were able to break down texts, uncover underlying themes, and critically evaluate diverse perspectives presented in literature concerning this topic.

In essence, the results indicate that integrating reflective critical reading, creative writing, and text analysis into educational methodologies can greatly amplify students' understanding of Palestinian cause values. By nurturing these skills, educators can empower students to critically engage with complex issues, develop empathy towards marginalized communities, and actively contribute to promoting peace and justice in conflict-affected areas. See references: (Essel et al., 2024)^[1], (Sahoo & Mohammed, 2018)^[2].

8. Discussion and Implications

8.1. Interpretation of Findings

Key Insights:

Delving into the findings, it is evident that the incorporation of reflective critical reading, creative writing, and text analysis is pivotal in enhancing students' cognitive abilities and fostering critical thinking skills. Analysis of the data gathered from various studies indicates that students who are exposed to these methods demonstrate notable improvements in their capacity to think critically, creatively, and reflectively.

Through engaging with diverse texts and participating in creative writing tasks, students not only refine their comprehension skills but also develop a deeper grasp of intricate concepts. The findings highlight that collaborative writing exercises can effectively cultivate critical thinking skills among students, enabling them to collaborate efficiently in team settings and construct well-thought-out research proposals.

Furthermore, the results emphasize the broader impact of these interventions beyond academic performance. Students reported enhancements in communication skills, empathy, teamwork capabilities, perspective-taking, and ethical reflection. By partaking in reflective writing practices, students are able to navigate through various stages of decision-making, thus honing their critical thinking acumen and broadening their self-awareness.

In essence, the outcomes underscore the significant advantages of integrating reflective critical reading, creative writing, and text analysis into educational frameworks for the holistic development of students' cognitive faculties and overall academic achievements. See references: (Essel et al., 2024)^[1], (Dahl et al., 2023)^[6], (Sahoo & Mohammed, 2018)^[2], (Michael J. Devlin, 2015)^[8].

Type of methodologies planned	Exemplar (E)	%
Methodology not described	E1:	A longitudinal study is to be conducted for 5 years.
E2:	This study will be conducted for 1 year to determine which of the following methods: retinal photography or ophthalmoscopy is more effective in screening diabetic	9.6

Type of methodologies planned	Exemplar (E)	%	
	retinopathy.		
E3:	We would like to study the patients visiting retinopathy screening clinic for a period of 2 years.		
Observational methodology	E4:	This prospective cohort study on diabetic retinopathy prevention will target on looking into the effectiveness of strict glycemic control in reducing & preventing the risk of diabetic retinopathy. This study is best studied using prospective cohort as we will be obtaining information from patients who are under exposed group.	50.0
E5:	Our study will be an observational single centre case control study.		
E6:	A cross sectional study is to be conducted to study the exposure of ultraviolet on the development of age-related cataract.		
E7:	The present study is a 5 years prospective cohort study. Ethical committee clearance will be taken.		
Intervention methodology	E8:	The randomised controlled experimental study is to be conducted.	40.4
E9:	We plan to conduct a double blinded randomized controlled trial to study the effect of ruboxistaurin (a protein kinase C inhibitor) in the prevention of diabetic retinopathy.		
E10:	A case-control study to investigate the association of curcumin in prevention of diabetic retinopathy in Malaysian (Melaka) population.		
E11:	This will be an intervention study, of a randomized controlled trial whereby the study of anti-oxidant supplementation and prevention of age related cataract in Melaka General Hospital.		
E12:	Based on a study done by		

Type of methodologies planned	Exemplar (E)	%
	researchers from Diabetic Retinopathy Clinical Research Network which was funded by the National Eye Institute of the United States, we will conduct an interventional study involving a target sample size of 300 patients registered in Klinik Kesehatan Peringgit for diabetic follow-up.	
E13:	The study design we would choose is randomized triple blind controlled trial to investigate the efficacy of antioxidant vitamins and zinc in cataract prevention.	

[Table 10](#): Distribution of the Research Proposals Based on the Methodology (source: reference (Sahoo & Mohammed, 2018)^[2])

8.2. Theoretical Implications

Integrating reflective critical reading, creative writing, and text analysis into education is crucial for enhancing students' independent thinking and analytical skills. Moving away from memorization-focused methods towards encouraging questioning and reflection is essential. Creative writing theories in education improve communication, creativity, and self-expression. Reflective writing exercises aid in personal understanding and empathy development. Teaching text analysis helps students interpret and evaluate written content, uncovering underlying meanings and biases. These skills are vital for navigating complex information landscapes. Overall, integrating these approaches equips students with essential tools to succeed in a complex world, emphasizing critical thinking, creativity, and analytical capabilities. See references: (Itmeizeh & Hassan, 2020)^[5], (Remein et al., 2020)^[12].

8.3. Practical Implications for Education

The use of AI-driven conversational large language models like ChatGPT in academic settings can greatly benefit education. Students experience improved critical, creative, and reflective thinking skills when interacting with ChatGPT, leading to enhanced learning outcomes. By providing personalized explanations and encouraging the application of theoretical concepts to real-world scenarios, students develop higher-order thinking skills. Integrating ChatGPT into various courses offers a flexible and interactive platform that caters to individual learning styles, ultimately elevating student learning outcomes. This integration emphasizes the importance of incorporating advanced technologies into higher education to enhance cognitive functions across diverse fields of study. Overall, utilizing AI chatbot models like ChatGPT in educational environments enables educators to foster essential cognitive skills necessary for academic success and lifelong learning. See reference (Essel et al., 2024)^[1].

9. Conclusion

9.1. Summary of Findings

The research conducted on utilizing creative writing and staged readings to cultivate empathy and critical thinking uncovered valuable insights despite encountering obstacles during the transition to online teaching amid the COVID-19 pandemic. Despite the challenges, students experienced unexpected benefits such as feeling more at ease presenting online and actively participating in the project. While some students expressed missing face-to-face interactions and casual conversations, overall, with proper assistance, they successfully adapted to the digital format.

Engaging in creative writing and staged readings as part of a narrative medicine unit proved to be a rewarding experience for students. They enhanced their critical thinking abilities, gained insight into diverse perspectives, and learned how narratives can be utilized effectively to empathize with others' experiences. The freedom they had in selecting health-related topics, exploring characters, and expressing their thoughts through various creative mediums significantly enriched their educational journey. Many students highlighted that this unit stood out in their academic experience, demonstrating the effectiveness of integrating creative writing and staged readings into educational contexts.

In conclusion, the study underscored the positive influence of creative writing and staged readings in fostering critical thinking skills, empathy, and understanding among students. The results stress the significance of incorporating innovative approaches like these into education to improve learning outcomes and encourage reflective critical reading habits. See reference (Freeman & Phillips, 2021)^[4].

9.2. Limitations of the Study

It is important to recognize the limitations of this study in order to fully grasp the research findings. One limitation is the reliance on abstracts for data, which may lack the detail found in full articles or theses, potentially restricting the depth of analysis. Moreover, combining data from various educational assessments with different methodologies introduces a level of subjectivity into the interpretation process. This subjectivity emphasizes the necessity for further exploration into best practices for conducting quantitative studies within qualitative settings, such as reflective critical reading and creative writing in education.

Furthermore, the study's focus on a specific group of participants and course setting may have triggered a Hawthorne effect, where participants modify their behavior due to being observed or participating in a new educational experience. To mitigate this limitation, future research should involve a diverse range of participants from various academic levels and departments. Additionally, differences in critical thinking scores between the experimental and control groups during the pre-test phase could have impacted the observed percentage increases post-intervention.

Another constraint is that self-reported data was predominantly utilized in this study, which could introduce bias related to social desirability. Subsequent research could benefit from incorporating mixed-methods approaches to enhance the credibility of findings. Lastly, conducting studies in diverse educational

environments beyond Ghanaian universities is imperative to ensure the applicability and coherence of outcomes. See references: (Essel et al., 2024)^[1], (Remein et al., 2020)^[12].

9.3. Recommendations for Future Research

Future research in fostering reflective critical reading, creative writing, and text analysis in educational settings should focus on using standardized assessment tools to measure students' critical thinking abilities post-intervention. Including diverse student populations from various academic disciplines can enhance the generalizability of results. Longitudinal studies are needed to understand the lasting effects of these interventions on cognitive capacities. Utilizing mixed-methods approaches combining self-reported data with objective evaluations can provide a more comprehensive understanding of students' growth. Replicating studies in different educational contexts and countries is essential to assess consistency and transferability of results. Overall, future research initiatives should prioritize standardized assessments, diverse participant samples, long-term impacts, mixed-methods methodologies, and replication studies to advance our understanding of promoting reflective critical reading, creative writing, and text analysis in education. See references: (Essel et al., 2024)^[1], (Sahoo & Mohammed, 2018)^[2].

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