Short Stories and AI Tools: An Exploratory Study

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Abstract—This study investigated the integration of artificial intelligence (AI) tools in teaching literature, specifically focusing on short stories. An online survey of literature teachers was used, in which 40 literature teachers from different Saudi universities participated. The survey results indicated that literature teachers recognized the potential benefits of AI tools, including personalized learning experiences and increased student engagement. Teachers believed that AI tools could improve learning outcomes by enhancing students' comprehension of literary techniques and devices. However, the survey also revealed challenges related to teacher training and concerns about the quality of AI-generated content. The study suggests several recommendations, including stakeholder engagement, comprehensive teacher training, ethical guidelines, continuous evaluation of AI tools, and ensuring that AI complements rather than replaces human expertise.

The study concludes that AI tools, when implemented thoughtfully and supported by ongoing research, have the potential to enhance short story education by providing customized and engaging learning experiences that enhance interactions between students and texts.

Index Terms—artificial intelligence, short story, personalized learning, learning outcomes, motivation, engagement

I. INTRODUCTION

Short stories are a useful pedagogical tool for developing students' critical thinking and analytical abilities. As Mohammad and Mehrgan (2012) assert, engaging with literature nourishes these higher-order cognitive skills and supports second language acquisition. The compact yet nuanced nature of short fiction lends itself well to critical responses and questioning from readers (Pardede, 2019). Murdoch (2002) emphasizes that judiciously selecting stories and designing thoughtful activities, such as role-plays based on crafted dialogues, can significantly enrich English language teaching for intermediate learners. Through close reading exercises involving theme identification, character analysis, and examination of literary techniques, learners hone skills in analytical reasoning and written expression (Murdoch, 2002). Such textual analysis cultivates proficiency in higher-order thinking. Nazara (2019) further notes that the engaging nature of stories motivates students to participate actively in learning. Participating respectfully in discussions requires dexterity in self-expression and listening comprehension, skills that exploration of short stories could contribute to crafting engaging, skill-centered literature pedagogies leveraging new technologies. Findings could inform the development of innovative, evidence-based approaches that judiciously apply AI technologies. Artificial intelligence tools show promise for enriching literature pedagogy through personalized, engaging learning experiences.

Asthana and Hazela (2020) note that AI is rapidly transforming education by developing new student competencies and collaborative learning models. When integrated thoughtfully, AI offers advantages like individualized instruction, improved understanding of literary concepts, time-efficient grading, comprehensive text analysis, and immersive learning environments. However, it is vital to prioritize meaningful student engagement, ethical use, and the cultivation of core literary abilities (Asthana & Hazela, 2020). This study explores the potential of AI tools specifically for short story teaching and their impact on learning outcomes, motivation, and involvement. Through a review of relevant literature and an analysis of learning analytics from an AI-assisted short story module, the research aims to evaluate the integration of AI in enhancing short story education. It also seeks to identify challenges and limitations to inform the development of innovative, evidence-based approaches that judiciously apply AI technologies. Findings could contribute to crafting engaging, skill-centered literature pedagogies leveraging new technologies.

Traditional approaches to teaching short stories present several challenges for educators. A key limitation is the lack of personalized instruction, making it difficult to meet individual student needs effectively (Asthana & Hazela, 2020). In addition, the time-intensive nature of traditional feedback and support constrains differentiated learning (Murdoch, 2002). As a result, traditional methods can feel less engaging for students, potentially reducing motivation (Nazara, 2019). Artificial intelligence (AI) tools show promise for addressing these barriers by enabling personalized, collaborative learning experiences (Pardede, 2019). However, research is still needed to evaluate the efficacy of AI in enhancing short story instruction.
The current study aims to explore literature teachers’ perspectives on the potential of AI tools to transform short story pedagogy and overcome the limitations of traditional methods. A questionnaire was conducted in which 40 teachers participated to assess perceptions of how AI may impact student learning outcomes, motivation, and participation. The goal is to determine whether AI can augment short story teaching in a meaningful way and inform innovative practice. In other words, the objectives of this study are as follows: a) evaluating the effectiveness of AI tools in improving student learning outcomes, b) exploring the impact of AI tools on motivation and engagement levels among students, c) and identifying the challenges and limitations of using AI tools in teaching short stories. Findings will provide insights into how AI tools promise to support individualized, engaging instruction while also identifying challenges to guide ethical application.

The significance of the study is to provide findings that could guide the development of innovative, AI-augmented short story methodologies addressing the limitations of traditional approaches. By exploring how AI tools may facilitate personalized, engaging learning experiences, this research seeks to evaluate their potential to transform short story instruction. Specifically, the study investigates AI’s role in supporting differentiated learning pathways and feedback to better meet students’ individual needs. Evaluating the effectiveness and challenges of AI integration aims to advance short fiction teaching through technology-enhanced solutions promoting student-centered, skills-based learning. Findings may contribute new knowledge to revolutionize short story pedagogies leveraging AI and augment traditional methods for a more tailored educational experience.

II. LITERATURE REVIEW

In the past few years, the extensive utilization of artificial intelligence (AI) and smart classroom technology has opened up new avenues for the modernization of education. These technologies provide a wide range of resources and offer flexible and diverse formats, which greatly contribute to the comprehensive transformation of teaching practices, both in terms of conceptual approaches and instructional formats (Zhang et al., 2023). These technologies have also been used to teach literature as a discipline and as a means for English as a Foreign Language (EFL) learning and teaching. Liu et al. (2019) explored the use of a machine-learning algorithm for detecting and evaluating literary style in Chinese poetry. The researchers found that the algorithm successfully recognized different stylistic elements. It also improved students’ understanding and interpretation of the poems. By applying machine learning techniques to literary analysis, this research demonstrated the potential for AI to enhance comprehension and appreciation of written works. Among various literary genres, short stories have been recognized as particularly effective for integration into EFL classrooms (Ceylan, 2016). The inclusion of short stories holds great significance as it offers students a platform to cultivate their critical thinking and analytical abilities (Crumbley & Smith, 2000). By immersing themselves in these concise yet intricately crafted literary pieces, students are provided with valuable prospects to refine essential cognitive and communicative skills (Pardede, 2011). Skills like analysis, writing, and vocabulary positively impact students across disciplines by enhancing their abilities to communicate, understand new concepts, and empathize with varying views (Ceylan, 2016).

Literature is often used to promote personal growth and intellectual development because it allows learners to understand and appreciate certain communities, environments, and philosophies that vary from themselves (Carter & Long, 1991). The brevity of short stories keeps students engaged while exploring diverse cultures, issues, and perspectives. Beyond skills and cultural literacy, short stories offer creative inspiration and enjoyment. Analyzing different writing styles nurtures students’ creative talents. Relating to characters builds perspective-taking. Short stories are likewise transferable skills applicable in further education and careers. Reading comprehension deepens as students infer meaning concisely (Kirkgoz, 2012).

In the past, educators used various digital tools at their disposal to bring short stories to life in engaging ways for students. Multimedia like images, videos, and audio can be incorporated into presentations to help visualize settings and characters. Learners can also develop creativity and storytelling abilities by producing their digital narratives using apps. Online libraries, websites, and e-books give ubiquitous access to literary works. Interactive activities, quizzes, and games found on websites and apps support comprehension development at different levels. Immersive technologies like virtual and augmented reality can immerse students in a story’s world. Digital forums, platforms, and social media facilitate collaborative analysis and interpretation. For example, Teach Nouvelle ELA offers comprehensive short story ideas for English class, including teaching tips, story recommendations, timesaving resources, and full lesson plans for each topic, plus handouts, rubrics, presentations, and tests that can be used digitally or on paper. The resource also suggests ways to simplify and streamline short story units. The General Education Literature website at the University of Iowa provides strategies for teaching short stories, including introductory ideas and activities, highlighting characters, and using round table reading to encourage discussion and observation. Much Ado About Teaching offers four ways to teach short stories well, including teaching students to see themselves in the stories, using images to explore the dominant image of the story, and exploring human experiences in the story. The website also provides a list of 50 human experiences that can be used to explore any story. These digital methods make short story lessons lively while fostering critical thinking, technical proficiency, and interactive learning.

The future direction of higher education is closely connected to advancements in new technologies and the growing capabilities of intelligent systems. In this domain, continued progress in artificial intelligence will lead to novel ethical application.
opportunities and challenges for teaching and learning. The rapid developments in AI technology are likely to profoundly impact how knowledge is delivered and acquired at higher education institutions in the years ahead. Only a few studies have explored this area. Roy and Putatunda (2023) argue that the incorporation of artificial intelligence (AI) into the teaching of English literature has the ability to improve conventional teaching methods and transform the learning process. Through the utilization of AI's capabilities, English literature teachers can provide customized learning experiences, encourage student participation, and foster critical thinking and analytical skills. Similarly, Cox (2021) examined the impact of artificial intelligence and robots on higher education through literature-based design fiction. He argues that AI and robotics are likely to have a significant long-term impact on higher education, but the full scope of this impact is difficult to grasp as the relevant literature is siloed and the technologies themselves are evolving. Developments in using AI and robots for education purposes are surrounded by controversies regarding what is technically feasible, practical to implement, and pedagogically or socially desirable. To help explain and interrogate the technological possibilities, Cox develops eight design fictions based on a narrative literature review. These design fictions aim to vividly imagine future scenarios of AI and robotic use in learning, administration, and research to prompt wider discussion. Specifically, the fiction depicts issues like how AI and robots could enable the teaching of high-order skills or change staff roles.

There is still a need to explore how AI’s application can change the way short stories are taught and studied. The integration of AI into EFL classrooms has the potential to revolutionize the teaching and studying of short stories. AI can facilitate personalized learning experiences by analyzing learners’ proficiency levels and interests to recommend appropriate stories and activities. It can provide automatic feedback on written assignments, check for errors, and offer immediate suggestions for improvement. Interactive activities, such as virtual tours or plot simulations, can be created to enhance engagement and immersion. AI's adaptive learning capabilities allow for real-time adjustments to lesson plans based on learners' mastery of concepts. Automated assessments through voice recognition technology enable frequent evaluations of reading comprehension and language proficiency. AI can provide personalized explanations of grammar or literary devices based on learners’ questions. Advancements in AI can create immersive storytelling experiences, bringing story events, characters, and settings to life. Ultimately, AI-guided learning allows learners to progress at their own pace with personalized support and enrichment, transforming the way short stories are taught and studied in EFL classrooms.

III. RESEARCH QUESTIONS

To achieve the research objectives, the study will answer the following research questions:
1. What are the perceptions of literature teachers about the use of AI tools in teaching short stories?
2. What are the challenges and limitations of using AI tools in teaching short stories?

IV. METHODOLOGY

A. Participants and Instrument of the Study

This study employed a survey to address the research questions. The target population consisted of college literature instructors with varying years of teaching experience. A non-probability sample of 40 participants was collected. An online questionnaire was developed relating to the research objectives, examining perceptions of AI integration challenges and their impact on learning processes, motivation, and outcomes. Both closed-ended and open-response items were included to gather quantitative and qualitative data. Quantitative responses were analyzed using descriptive and inferential statistics such as frequencies, percentages, measures of central tendency, and variance. Qualitative data underwent thematic analysis to identify major themes. The triangulation of survey findings was used to conclude AI's potential role in transforming short story pedagogy. Key results were interpreted in the context of prior research on personalized learning technologies. This quantitative approach aimed to provide an in-depth understanding of AI implementation in teaching short stories from the perspective of instructors.

B. Data Collection and Analysis Procedures

The survey was distributed online using Google Forms software. Respondents received a link to access the digital questionnaire. Using this online format allowed the questionnaire to be conveniently distributed remotely to participants from different universities. The survey responses were examined using both descriptive and inferential statistical techniques. Descriptive statistics provided an overview of each item's results. Inferential statistics were employed to compare answer patterns.

V. RESULTS

This section addresses the two research questions after presenting a thematic analysis of multiple data sources from literature instructors collected over the period covering the 2022-23 academic year. More specifically, this section will pertain to detailed findings and discussion for the following emerging themes:
1) common utilizations of AI tools in teaching short stories.
2) challenges and limitations experienced by literature instructors when using AI tools in teaching short stories.
The survey assessed perceptions of AI’s capacity for personalized short story instruction. An overwhelming majority (90%) strongly agreed or agreed that AI can enable individualized learning, while 10% remained neutral and none disagreed (Figure 1). This consensus suggests AI may tailor lessons, activities, feedback and recommendations based on student profiles. Its computational abilities support short fiction analyses. Respondents viewed AI as augmenting rather than replacing teachers through collaborative enhancement of personalized approaches. Findings indicate AI may meaningfully benefit learning by offering differentiated support alongside traditional methods. The data show the perceived potential for highly tailored education according to learner characteristics. Preliminary results suggest integrated AI promises engaging, skill-based instruction that addresses diversity. Further research is needed on the impact of this on student outcomes and experiences.

The survey examined perceptions of AI’s efficacy in teaching literary devices and techniques through generated content. The majority (60%) of respondents agreed that AI can effectively impart this knowledge, indicating overall positive views. Encouragingly, over a quarter strongly agreed, demonstrating confidence in AI’s instructional abilities in this domain. Neutral responses were minimal at 6.7%, suggesting indifference rather than skepticism. A small percentage disagreed, signaling some lingering doubts. Thus, there was a strong consensus among respondents that AI is capable of generating content to teach literary techniques effectively. Skepticism was limited, with most expressing openness and optimism about harnessing AI’s potential usefulness for literary education, despite residual hesitations among a minority. In summary, the findings revealed confidence and interest in AI’s instructional power for conveying literary knowledge, with only a small proportion retaining uncertainties - representing a generally positive outlook.
The survey analyzed perceptions of AI's potential to save teachers' time by automating grading and feedback through results in Figure 3. The majority (82.7%) strongly agreed or agreed with this notion, revealing robust support. A small percentage disagreed (3.4%), suggesting not all are fully convinced but most recognize AI's time-saving potential. Over a quarter strongly agree emphasizes the anticipated significant efficiency gains from offloading administrative duties. Neutral responses were relatively minor (14.8%), without disputing the idea. Importantly, no respondents rejected it, indicating AI is not viewed as replacing educators. Overall, findings suggest AI is optimistically perceived as a practical solution to alleviate workloads by automating repetitive tasks, allowing focus on pedagogical expertise. The strong consensus, small dissent, and lack of outright rejection portray AI as a pathway to enhance productivity rather than diminish the profession. Most see the potential for technology to optimize limited hours for more impactful teaching.

The analysis of responses revealed a strong consensus, with 86.6% strongly agreeing or agreeing that AI tools can aid in analyzing and explaining literature by identifying literary devices and techniques. This indicates a positive outlook on AI's potential for enhancing student understanding. Neutral responses (10%) suggest some neither fully support nor oppose the idea, possibly due to a lack of familiarity with AI in this context. A small percentage disagreed (3.3%), signaling skepticism about AI's effectiveness. Dissenting views were in the minority. Overall, the results indicate a generally positive outlook on using AI tools for literary analysis and explanation, with a strong majority agreeing. The findings suggest that many believe AI can provide valuable insights for students. However, some reservations and neutral perspectives were also present.
The analysis shows a strong consensus among participants that AI tools can create engaging and interactive learning experiences for students through gamification and other features. A majority (66.7%) agreed, while a significant portion (23.3%) strongly agreed with this view. No disagreement indicates unanimous positive sentiment about the potential of AI to improve student engagement and interactivity. The 10% neutral response suggests a range of perspectives, including those needing more information to form an opinion. Overall, the results highlight a strong consensus and optimism that gamification and interactivity enabled by AI can enhance student engagement and promote effective learning. The findings indicate participants see significant value in leveraging AI tools this way.

The analysis shows a significant consensus among participants on the need to consider the ethical implications of using AI-generated content in teaching literature. A majority (50%) agreed, and a substantial portion (43.3%) strongly agreed that ethical factors must be addressed when integrating AI into literature education. No disagreement indicates unanimous recognition of the importance of ethics when leveraging AI in this domain. A small neutral response suggests some variation in perspectives. The strong agreement reveals that participants view ethical considerations as critical when adopting AI for literature instruction. The results demonstrate awareness among participants of potential ethical challenges with AI in literature education. There is a clear consensus on the importance of responsible and thoughtful integration of AI to ensure ethics are accounted for. The findings show participants believe ethical implications must be considered when using AI-generated content for teaching literature.
Figure 7.

The analysis of responses in Figure 7 showed that the majority of participants (89.9%) agreed or strongly agreed that AI tools can greatly improve student learning outcomes in short story education, indicating an overall positive sentiment and high confidence in AI's learning enhancement capabilities. There were no opposing views, demonstrating unanimous optimism among respondents. However, 10% responded neutrally, suggesting a range of perspectives requiring more information. The results revealed strong consensus and optimism about AI's transformative power to significantly boost learning outcomes. The findings indicate participants recognize AI's potential to transform education in this area, highlighting its value as a tool for improving learning experiences and achievements when teaching short stories.

8. The use of AI tools in teaching short stories can positively impact student motivation and engagement.

The majority of participants (90.5%) strongly agreed or agreed that using AI tools in teaching short stories can positively impact student motivation and engagement. This indicates a widespread belief among participants in the potential benefits of AI tools for enhancing student motivation and engagement. A small percentage responded neutrally (6.7%), suggesting varying perspectives requiring further information or holding mixed views. A minority disagreed (2.8%), indicating they do not believe AI positively impacts motivation and engagement. Overall, the results highlight significant agreement among participants regarding AI tools’ positive impact on motivation and engagement for learning short stories. While some differing opinions and neutral responses existed, the majority expressed confidence in AI's potential to enhance these experiential aspects.
The survey results reveal that the majority of respondents (89.9%) agree or strongly agree that AI tools can create engaging and interactive learning experiences for students, indicating a positive outlook on AI’s potential to enhance education. Among those surveyed, individuals with personal experience of AI-powered learning tools (23.3%) strongly agree with this statement, while others (66.7%) agree, showing openness to the idea. A smaller percentage (10%) remains neutral and may require more information or experience to form an opinion. Notably, there was no disagreement or strong disagreement, suggesting limited opposition to AI’s potential in education, although the survey sample may not represent all sceptics.

The analysis showed a majority of participants, including 80% who strongly agreed or agreed, recognize the challenges and limitations associated with using AI tools to teach short stories. This indicates widespread acknowledgment among participants of potential difficulties and constraints. A notable 16.7% were neutral, suggesting varied perspectives needing more information or consideration. In contrast, a minority (3.3%) strongly disagreed that there are no challenges, expressing differing opinions. The results highlight recognition among participants that employing AI tools for short story instruction does present challenges and limitations. While some differences of opinion and neutral views exist, a significant portion acknowledges potential implementation difficulties in this educational domain.

VI. DISCUSSION

A total of 40 college literature teachers participated in the survey, with the majority (66.7%) aged 40-50. Respondents were optimistic but also pragmatic about AI’s role in literature education. The potential for personalized learning tailored to individual students' abilities and interests was seen as complementing traditional instruction. AI was viewed as an effective tool for teaching literary concepts through interactive stories, examples, and analyses. Automating repetitive tasks like grading could free up time for higher-value teaching. Comprehensive AI text analysis
was believed to improve student comprehension by explaining devices (Miller, 2022). Immersive, gamified activities were thought to promote active, collaborative learning, and critical thinking.

While acknowledging limitations, respondents strongly felt AI could positively impact student motivation, and outcomes through enhanced understanding. Interacting with literature should supplement, not replace, active student exploration. Potential challenges included a lack of creativity, over-reliance on tools, and plagiarism risks. Effectiveness compared to human teaching interactions was also a concern.

Broad stakeholder engagement is needed to ensure AI integration addresses the concerns of teachers, parents, students, and policymakers. Their input should guide development. Providing teachers with training on effective AI pedagogy and ongoing support can ease adoption concerns by helping AI augment expertise. Developing ethical AI guidelines addressing privacy, bias, and data protection is also important. Continuous research is recommended to evaluate tool effectiveness on student outcomes, engagement, and motivation through gathering user feedback. A holistic approach sees AI strengthen, not narrow, learning by complementing established methods through supplemental means of engaging learners. AI should not dominate or circumvent the curriculum but rather enhance it. An evaluation framework for ongoing assessment over time should quantitatively and qualitatively capture impacts on literacy learning while acknowledging technical, accessibility, and usability challenges to facilitate continuous enhancements. Overall, thoughtful, evidence-based integration upholding quality multimedia experiences and human roles in balanced education can help to realize AI's benefits without compromising standards.

VII. CONCLUSION

The integration of AI tools in teaching short stories was explored in this study through a literature review and an online educator survey. The survey results revealed widespread agreement among middle-aged respondents regarding the potential benefits of AI, including personalized learning, improved comprehension of literary devices, and increased engagement through gamification. Educators expressed confidence in AI’s ability to positively impact student outcomes and motivation, despite acknowledging challenges such as teacher training and ethical concerns surrounding AI-generated content. Overall, the study’s findings point to AI’s promising role in transforming story teaching by providing tailored support based on individual needs. It is crucial to implement AI judiciously, with ongoing research and stakeholder input, to enhance literacy education through personalized and engaging experiences while preserving the expertise of human teachers. While further work is needed, the results suggest that AI has the potential to revolutionize pedagogy by augmenting, rather than replacing, meaningful student-text interactions at the core of literary study. Continued evaluation of AI tools' real-world impacts will be essential to fully realize their potential in supporting and motivating learners.

The fact that the research was conducted solely in Saudi universities may limit the generalizability of the findings to other regions and cultures. Yet the respondents belong to different nationalities, age groups, and levels of experience. Another limitation is the substantial underrepresentation of younger adults and older demographics compared to the dominant middle-aged group. A more balanced distribution across different generations could have provided greater insight into varying attitudes across age groups toward AI tools in literature education.

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