

AI-ASSISTED ENHANCING OF GENDER AWARENESS THROUGH READING COMPREHENSION IN HISTORY AND LITERATURE COURSES OF ANGLOPHONE CULTURES

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ABSTRACT

The study investigates the pilot verification of the role of AI-powered tools like ChatGPT, Perplexity, and Gemini in enhancing reading comprehension and critical thinking skills among students in history and literature courses focused on Anglophone cultures. These tools provide personalized explanations and foster diverse text analysis, increasing awareness of gender biases and inequalities in canonical works. The research, based on workshops employing the design thinking principles (Plattner – Meinel – Leiffel, 2011), aims to engage Generation Z students, also known as the Homeland Generation (Carter, 2018). Zeers are often considered a “non-reading” generation as they address their digital preferences. Design thinking principles are employed to facilitate students’ active participation in content creation. The workshops emphasize the dual roles of AI tools and educators, with teachers guiding students to navigate potential AI biases while promoting independent critical thinking skills. The methodology includes AI-assisted reading exercises, literary analysis, and searching for historical facts, encouraging students to engage with gender and transgender themes. The authors highlight the neurological risks of passive AI tool use, referencing Stranský (2023), stressing the importance of maintaining cognitive engagement. Preliminary findings indicate improved vocabulary and writing style among a third of participants, though grammar improvement remains limited. Therefore, it is crucial to form Zeers and raise Alphas and upcoming Betas to prevent generational degeneration. As these generations are digital natives, avoiding technology is impractical. Consequently, teachers must guide them on how to use AI tools wisely and integrate them effectively into the educational process. Careful integration of AI-assisted activities alongside traditional instructional methods can empower students to engage more deeply with course materials and recognize gender as a crucial lens for interpreting literary and historical narratives.

KEYWORDS

Reading Literacy, Reading Comprehension, History, Literature, Anglophone Cultures, AI Tools, Design Thinking, Gen Z, Gen Alpha

1. INTRODUCTION TO AI-ASSISTED GENDER AWARENESS IN READING COMPREHENSION

The advent of artificial intelligence (AI) tools in education marks a significant shift in how students engage with and comprehend course materials. AI-powered applications like ChatGPT, Perplexity, and Gemini offer personalized explanations and foster critical thinking skills in history and literature courses focusing on Anglophone cultures. These tools help students analyze texts from diverse perspectives, enhancing their awareness of gender biases and inequalities embedded in canonical works. This research explores the integration of AI tools in educational workshops aimed at improving reading comprehension and gender awareness among Generation Z, often labeled a “non-reading” generation due to their preference for digital content over traditional reading.

Recent studies, such as those by Alderson (2000), emphasize that reading comprehension is not merely a passive receptive skill but a complex cognitive process. Engaging Generation Z requires an educational approach that accommodates their digital nativeness while promoting critical literacy skills. Teachers must

adopt roles as mentors, guiding students through the potential biases of AI systems and emphasizing the development of independent critical thinking. The work of neurologist Stranský (2023) underscores the importance of active engagement with AI tools to prevent cognitive decline.

The workshops organized by the authors applied design thinking principles to engage students actively. This method prioritizes understanding the needs of the user(s). By incorporating AI tools in these workshops, students are encouraged to contribute to their educational content, enhancing their reading comprehension and critical thinking skills. The workshops address gender and transgender questions by fostering open discussions and analyzing both literary works and historical events.

The integration of AI in education offers a multifaceted approach to addressing reading comprehension challenges and enhancing student engagement. By leveraging AI tools and methodologies, educators can create more inclusive and effective learning environments that cater to the diverse needs of students.

2. THEORETICAL FRAMEWORK: READING COMPREHENSION AND GENDER AWARENESS

2.1 Understanding Reading Comprehension Skills

English has become a prominent global language, especially in fields such as technology, economics, commerce, and science. Reading is a vital skill for processing this information, enabling students to understand various texts and acquire knowledge effectively. Schools usually categorize language skills into receptive (listening and reading) and productive (speaking and writing) skills. Reading, in particular, serves as a means of communication through written texts, allowing individuals to gather information across different aspects of life, including science and technology. It is essential for anyone seeking knowledge, as it helps individuals absorb a wealth of information. Moreover, the higher education environment necessitates the development of advanced reading skills, encouraging students to engage with both general and specialised texts to enhance their comprehension and analytical abilities (Kováčiková – Kráľová, 2021).

For English learners, reading enhances overall language skills, aids in thinking in English, expands vocabulary, improves writing, and introduces new ideas and experiences. This, in turn, deepens students' understanding of English (Mickulecky – Jeffries, 2004; Harmer, 2003). However, teaching reading skills presents several challenges. Understanding a text depends on students' background knowledge, cultural context, and familiarity with different text types. Without these, comprehension can be difficult (Alderson, 2002). Insufficient vocabulary, including technical terms and words with multiple meanings, further hinders text comprehension (Paren, 1996 in Harmer, 2003). Additionally, long, multi-clause sentences are harder to understand than shorter ones.

Language, as a tool for communication, is deeply connected to social contexts and individual identity. It conveys personal thoughts, cultural beliefs, and practices of communities. Language also distinguishes humans from animals, serving as a complex system of words and meanings (Haerazi et al., 2018). Unlike content-based subjects like science and mathematics, language (in our case English) encompasses four sub-skills: listening, writing, speaking, and reading.

Nowadays, technology plays a crucial role in enhancing learning processes, including reading comprehension. Reading comprehension is an interactive process involving the reader, the text, and the context, aiming to derive meaning from written words (Silliman – Wilkinson, 2007). Effective comprehension involves understanding simple terms, the author's intent, content evaluation, and adaptable reading speed. Silent reading is often the most effective activity for developing comprehension skills, as it allows for the interpretation of material read (Lestari et al., 2022). This interactive nature of reading underscores its complexity, involving visual activities and the process of translating written symbols into spoken words. It engages cognitive functions like word recognition, literal comprehension, interpretation, critical reading, and creative comprehension. Hafner and Pun (2020) categorize comprehension into literal understanding, interpretation, and critical reaction, ensuring that readers grasp the text's content.

Interestingly, Carlson et al. (2014) note that speed and comprehension are not necessarily correlated; fast readers often comprehend better because they view words in the context of whole sentences, rather than in isolation. This approach allows for quicker and more effective reading.

One modern technique to improve reading skills is through artificial intelligence (AI). AI technologies interact humanely with thought processes like learning, reasoning, and self-correction, offering a significant edge in language learning (Rasouli – Ahmadi, 2021). Before AI, students typically used other media to enhance their listening and reading skills. Integrating AI into reading instruction can provide personalized learning experiences, making the acquisition of reading skills more effective and engaging.

2.2 Addressing Gender and Transgender Issues in Literature

Given the rapid pace of societal change, it is crucial to foster open discussions about gender and transgender identity to create a more accepting environment for transgender individuals, women, and people of colour. Unfortunately, human society's foundations are built on ancient theories that prioritize white, cisgender men, perpetuating false beliefs about the inferiority of women and fostering harmful intolerance towards homosexuality and transgender identities. Despite significant progress in racial and gender equality, much work remains to ensure that everyone, particularly members of minority groups, can live in a safe and inclusive environment. Education is one of the keys to the reduction of gender disparities. To achieve gender equality, the curriculum should be designed to meet the needs and expectations of all social groups, and teachers must be trained to address gender-related issues and apply the curriculum impartially. Additionally, the community must be sensitized and involved in promoting gender equality and opposing any acts or policies that hinder community development. Implementing these resolutions requires significant resources, as well as the supervision and evaluation of various programs to assess their effectiveness and identify areas for improvement. Redesigning curriculum and pedagogy is a promising approach to achieving gender equality (Aikman et al., 2005). Literature has long served as a profound reflection of life, giving voice to various topics.

In recent times, modern and postmodern literary ideas have transformed the literary landscape. Writers worldwide have tackled the most urgent issues of their times, including gender inequality. These writers have actively championed social reform, tirelessly advocating for the marginalized and working towards meaningful societal change (Akhter, 2020). The exploration of gender and transgender issues in literature spans multiple genres and periods, reflecting societal changes and the evolving understanding of identity. Early literature often reinforced binary gender norms and marginalized non-conforming identities. In the 19th century, novels like George Eliot's *Middlemarch* (1871) and Thomas Hardy's *Jude the Obscure* (1895) depicted gender roles within the constraints of societal expectations. However, hidden within these works were subtle critiques of rigid gender norms, laying the groundwork for more explicit explorations of gender fluidity in later years. The 20th century marked significant progress in the representation of gender and transgender identities. Virginia Woolf's *Orlando* (1928) is a seminal work, presenting a protagonist who changes gender over centuries, challenging the fixed nature of gender identity. Woolf's narrative was revolutionary, highlighting gender as a fluid and dynamic construct. James Baldwin's *Giovanni's Room* (1956) further pushed the boundaries by addressing complex issues of sexuality and gender identity. The latter part of the 20th century and the early 21st century saw a surge in literature specifically focusing on transgender experiences. Leslie Feinberg's *Stone Butch Blues* (1993) is a cornerstone in transgender literature, offering an autobiographical account of growing up gender non-conforming. Among the more recent stories are Michal Cunningham's *The Hours* (1998) and David Ebershoff's *The Danish Girl* (2000). Both texts explore the complex nuances of gender identity and the societal limitations placed on individuals, providing profound insights into the characters' lived experiences. *Detransition, Baby* is a 2021 novel by American author Torrey Peters, made history as the first novel written by a trans woman to be included on the Women's Prize for Fiction list.

The discussion of gender inequality has gained notable traction in academic and scientific circles. Akhter (2020) examines all the elements of gender inequality, the agony, and the pain suffered by these members around the globe through the lenses of fiction. In 1997, Luise von Flotow published *Translation and Gender: Translating in the Era of Feminism*, a work that delves into feminist perspectives on gender as a cultural construct and examines translation as a form of cultural transfer. Sandra Lipsitz Bem's *The Lenses of Gender: Transforming the Debate on Sexual Inequality* (1993) re-examines traditional perspectives on gender and sexual inequality through a new theoretical lens. Bem, a prominent feminist psychologist, presents a groundbreaking analysis that challenges conventional views and offers fresh insights into the nature of gender inequality. Susan Stryker is a leading voice in transgender studies, offering a comprehensive overview of the history and social issues affecting transgender individuals. Her work *Transgender History* (2008) explores the representation of transgender lives in literature and media. In addition to these key figures, interdisciplinary

approaches involving sociology, psychology, and cultural studies have enriched the study of gender and transgender literature. Scholars from these fields often collaborate with literary critics to offer a more comprehensive understanding of how gender and transgender issues are represented and perceived in literature. The work of these scholars and authors continues to shape the field, offering new perspectives and challenging existing norms, thereby advancing the study of gender and transgender literature.

3. WORKSHOP METHODOLOGY: APPLYING DESIGN THINKING PRINCIPLES WITH USING AI TOOLS

Design thinking is crucial in today's fast-paced environment, allowing organizations to innovate effectively. By prioritizing user's needs and fostering a culture of experimentation, businesses can develop solutions that not only meet market demands but also enhance customer satisfaction and loyalty (McKinsey, 2023). Companies like Google, Apple, and Airbnb have successfully employed design thinking to drive innovation and create user-friendly products and services (Interaction Design). Design thinking is a dynamic approach and mindset employed to explore innovative and creative solutions to a wide range of challenges (Pondelíková, 2023). It aims to meet three essential criteria: desirability, feasibility, and viability. Desirability addresses what people truly want and need. Feasibility considers whether it is technically possible to build the solution. Viability examines if the solution can be profitable for the company. The current generation of college students (Gen Z) and high school students (Generation Alpha) have specific expectations from their education. This is why design thinking, as an optimal teaching method, has increasingly been integrated into educational process. The potential of design thinking extends beyond stimulating creative thinking, teamwork, and problem-solving; it also plays a crucial role in developing foreign language competence, enhancing intercultural communication, and improving reading comprehension skills. This connection to cultural intelligence and communication competence is highlighted by Dančišinová and Kozárová (2021). Design thinking involves a shift from traditional didactic teaching methods to more interactive and collaborative approaches. This approach better equips students to navigate the complexities of real-world business environments (Wrigley et al., 2020). From a psychological perspective, design thinking is based on four core principles: observing and noticing, framing and reframing, imagining and designing, and making and experimenting. These principles align with social-psychological phenomena, indicating that design thinking aids individuals in overcoming cognitive biases and promotes innovative thinking (Thompson – Schonthal, 2020).

The authors of the text designed the workshops on enhancing gender awareness through reading comprehension in the history and literature of Anglophone cultures by following Plattner, Meinel, and Leiffel's (2011) four key principles of design thinking, which are the human rule, the ambiguity rule, the re-design rule, and the tangibility rule. In *An Introduction to Design Thinking*, Plattner (2010) explains that understanding the target group is essential for defining problems and seeking optimal solutions, which are subsequently tested and validated. The design thinking process involves the following phases, which were incorporated into the workshop:

1. Empathize: understand the needs of the target group through conversations and observations;
2. Define: identify and articulate a specific problem based on insights from the empathize phase;
3. Ideate: generate a wide range of creative solutions without aiming for the most optimal answer immediately;
4. Prototype: develop simple solutions to the identified problem, allowing for user interaction and refinement; and
5. Test: present prototypes to users, and collect feedback on usability and areas for improvement.

Each workshop was limited to 25 participants, organized into small groups of five to encourage communication and personalized attention. We conducted two pilot workshops, "Writing Texts with ChatGPT," targeting third-year students preparing their bachelor's theses. Of the 45 students, 7 were men, 37 women, and 1 identified as other, with ages ranging from 19 to 24, and 37% being 21 years old. Paying close attention to group size, participant age, and interactive elements was crucial for maximizing the workshop's effectiveness. We then assessed its impact by collecting student feedback through an online questionnaire.

In the introductory part of the workshop, students selected their topics, such as "The Question of Transgender Identity in *The Danish Girl* by David Ebershoff" or "The Gender Question in *The Hours* by Michael Cunningham". As for historical topics, students could choose a topic based on their preferences, for

instance, “Tudor Monarchs: Royal Drama!”, or “The Victorian Era: Empire, Industry and Social Changes”. Once topics were chosen, participants followed the design thinking process by identifying their key strengths to contribute effectively to the team. They then assigned roles based on these strengths, such as writer, researcher, proofreader, and verifier. They then brainstormed their existing knowledge about the selected topics and used AI tools like ChatGPT or Gemini to gather additional information. After acquiring sufficient information, the ideation phase began, and they started developing their content, utilizing AI tools to enhance style and structure. The final version, refined and polished, reflected the quality expected of university students. This process required extensive reading comprehension and critical thinking, which were the main goals of the workshop. In the final phase of the workshop, participants engaged in peer feedback, assessing each other’s work, offering constructive criticism, and suggesting ways to enhance the final product. As these were pilot workshops, no formal grading took place. Instead, the teachers’ role was to summarize all the comments, highlight positive features, and point out potential improvements in working with ChatGPT.

The application of design thinking principles in the educational process enables continuous monitoring and adaptation to students’ needs, fostering a more personalized and effective learning experience. By engaging students as users and utilizing iterative feedback, educators can develop innovative and customized educational solutions that meet the specific needs of their target group. Moreover, teachers can use design thinking to create more interactive reading assignments that engage students and improve their understanding and critical thinking.

The adequacy of the selected method concerning the goal is crucial and essential for effective education (Sirotová, 2022). Selecting the most fitting teaching methods ensures that the essence of the educational process aligns with the desired outcomes. One such versatile approach is design thinking, applicable not only to designers but to all innovators. It can be used in literature (Pondelíková, 2022; Brooks, 2022), foreign language teaching to engage students with the target language and cultures (Sperling, 2022), art where it is transforming into art thinking (Robins, 2018). Additionally, it enhances cognitive strategies in translation and interpreting (Bohušová, 2017) and improves translators’ competencies (Welnitzová, 2023). Design thinking is also applied in music (Badizadegan, 2019), and prominently in science, industry, engineering, and business. Its primary objective is to uncover unconventional strategies and solutions beyond initial understanding.

While design thinking has shown great potential in enhancing educational outcomes, its implementation is not without challenges. A systematic literature review identified several obstacles faced by educators and students, including the need for continuous adaptation and the development of design thinking skills (Wrigley – Straker, 2015). Despite these challenges, the potential benefits of design thinking in education, such as the development of 21st-century competencies and increased student engagement, make it a valuable approach to be applied.

4. PRACTICAL OUTCOMES: ENHANCING GENDER AWARENESS AND READING COMPREHENSION

Reading and comprehending text is a fundamental skill crucial for academic success and lifelong learning, including in online environments, which also demand additional digital competencies. Students who struggle with reading comprehension encounter significant challenges, such as limited access to information, fewer academic opportunities, and diminished earning potential over their lifetimes (Kirsch et al., 2011). Therefore, identifying effective strategies to help students improve their reading comprehension skills is essential. Recent research highlights the effectiveness of personalized and adaptive learning strategies in enhancing reading comprehension (Fisher – Frey, 2020) and underscores the role of technology in addressing diverse learning needs.

Design thinking presents both opportunities and challenges in this context. While it fosters creative solutions and personalized learning experiences, it can also face limitations such as potential biases in understanding user needs, difficulty in addressing complex issues comprehensively, and the need for iterative testing and feedback (Brown, 2009). This approach can be particularly effective in increasing awareness of gender issues and developing critical thinking skills by encouraging students to deeply engage with diverse perspectives and real-world problems.

Literature and history courses offer valuable opportunities to delve into a range of topics, including contemporary issues like gender, through both literary analysis and historical context. The workshop conducted

for students at the University of St. Cyril and Methodius in Trnava, Slovakia, aimed to raise awareness of this issue by integrating reading comprehension techniques with the use of artificial intelligence tools. The objective was to compose a book review of up to 250 words for the literary section, focusing on key facts and information related to gender and transgender identity, along with recommendations for further reading or viewing. The students were tasked with having ChatGPT restyle their text to reflect a more academic tone. Given that the students were enrolled in an American literature course, they had background knowledge about the work under discussion. The design thinking process started with brainstorming ideas and subsequently continued with developing students' version of the book review for *The Danish Girl* by David Ebershoff.

Students' version:

David Ebershoff's most successful novel published in 2000. Fiction love story based on true story of the first person who undergoes gender change surgery. Story about a married couple. Einar was a successful painter, but Gerda is still trying to make her name. Gerda who needed a female model for her portrait, and used Einar because she didn't have anyone else to use. Einar found out he liked being in women's clothes. They developed an alter ego for him – Lili as a game. But slowly Einar felt more like himself as Lili. At some point, Einar realized he wanted to become a real woman. Unfortunately, the surgery didn't go as planned and Einar passes away after being turned into a woman. We highly recommend to watch the movie or read the novel as it was very inspiring.

The student version straightforwardly provides basic information but lacks cohesion and is read like a series of disjointed statements. Although important details are included, they are not elaborated well. The narrative is fragmented, more like a list of facts than a coherent story. It briefly mentions Einar's realization of his interest in women's clothing and his desire to become a woman but does not explore the complexities of gender identity in depth. The tone is informal and conversational, making it less suitable for academic purposes. The limited complexity and depth do not challenge the reader's ability to understand. Some details, such as Einar's evolving identity as Lili, are unclear or poorly explained. Furthermore, the recommendation to read or watch the adaptation is not well integrated into the narrative.

ChatGPT version:

David Ebershoff's most acclaimed novel *The Danish Girl*, published in 2000, is a fictional love story grounded in the true narrative of the first individual to undergo gender reassignment surgery. The story centres on a married couple, Einar and Gerda. Einar is depicted as a successful painter, whereas Gerda is portrayed as an artist still striving to establish her reputation. The narrative begins with Gerda's need for a female model, leading her to use Einar in the absence of other options. This experience ignites Einar's realization of his affinity for women's clothing, resulting in the creation of an alter ego named Lili, initially conceived as a playful experiment. Gradually, Einar increasingly identifies with Lili, eventually recognizing a profound desire to live as a woman. The novel poignantly details Einar's decision to undergo gender reassignment surgery. Tragically, the procedure does not succeed, and Einar passes away after the transition. This compelling and inspirational story is highly recommended for those interested in exploring the novel or its film adaptation.

The ChatGPT version provides a cohesive and structured narrative, adding specificity by including the book's title, *The Danish Girl*. The tone is more formal and academic, with varied sentence lengths that improve readability and flow. The narrative is more engaging and descriptive, using sophisticated language and vocabulary, which distinguishes it from student writing. This version delves deeper into Einar's transformation into Lili, providing a clearer and more detailed account. The tragic outcome and inspirational aspects are compellingly highlighted and offer a comprehensive and clear portrayal of the whole story.

Final version:

David Ebershoff's successful novel *The Danish Girl*, published in 2000, delves into a captivating love story inspired by the true account of the first individual to undergo sexual reassignment surgery. The narrative focuses on the lives of Danish painters Einar and Gerda Wegener. Einar, a prosperous artist, and Gerda striving for recognition, embark on a journey of self-discovery when she employs Einar as a female model. What begins as a playful game with the alter ego Lili transforms into a profound realization for Einar to become a woman. Tragically, the procedure does not succeed, and Einar passes away after the transition. Ebershoff's narrative and its film adaptation provide an inspiring and thought-provoking experience, highly recommended for those

seeking a profound literary exploration of the human experience, particularly through the lenses of identity and transgender issues.

The final version maintains the structure and detail of the ChatGPT version while refining the narrative description to focus more on the Wegener couple's journey. Key points are integrated more smoothly, enhancing coherence. The formal and academic tone is retained and further polished, with more sophisticated language and phrasing. This version engages the reader with a more compelling and apt narrative, effectively emphasizing the journey of self-discovery and identity. The tragic outcome is covered briefly without losing its impact. Themes of gender and transgender identity are highlighted more effectively, providing a deeper understanding of the human experience, which was the main goal of the workshop. The recommendation is seamlessly incorporated, linking the narrative covering the key topic.

The revisions from the students' version to the ChatGPT version resulted in significant enhancements in cohesion and flow, delivering a more detailed and engaging narrative with an academic tone and clarity. Further improvements from the ChatGPT version to the final version polished the language and structure, offering a more sophisticated and nuanced presentation. The final version places a clearer emphasis on a key theme which is gender/transgender identity, providing the most comprehensive and engaging analysis. This demonstrates a notable improvement in developing reading comprehension skills, critical thinking, and a deeper understanding of this complex theme.

The historical exercise aimed to explore and gather facts about the chosen topic, guiding students to decide on the presentation style for their final versions. Students could select among journalistic, tabloid, or academic styles. Similarly to the literary section, students engaged in the design thinking process by brainstorming their understanding of the chosen topic and identifying key concepts. After ideating, they used these insights to compose their own paragraphs. Finally, they were tasked with using ChatGPT to refine the style of their text. The following example illustrates the work of a group of students who selected the topic "Tudor Monarchs: Royal Drama!"

Students' version: "Progress and Reform: Queen Victoria's Victorian Era"

The Victorian era begins with the ascend of Victoria, daughter of King William IV, to the British throne on 20th June 1837. This era is defined as an era of great progress, jumpstarted by the industrial revolution and the trade and geopolitical influence the colonialism era brought to the country. The progress in industry lead to major changes in the lifestyle of the British citizens, as the rural areas were deserted in favor of cities under the promise of higher pay and climbing the socioeconomic ladder. As times were tough, poverty was rising in the overpopulated cities. With poverty rose crime and disease, and many children were also forced to work in manufactories, as there were no worker rights written in law yet. Some of these issues changed thanks to queen Victoria, who along with her parliament and the first ever prime minister, Robert Walpole, managed to write some protections for citizens into law – namely – opening the first women's colleges, ensuring mandatory school attendance up to 10 years, abolishing slavery in the British empire, passing the first public health act to combat diseases like cholera and even allowing the construction of the world's first metro and revolutionizing trade between the colonies by opening the Suez canal. The era ends with queen Victoria's death at 81 years of age, in 1901, after a 63 year successful reign.

The students' version accurately describes the Victorian era's beginning with Queen Victoria's ascension on June 20, 1837, highlighting significant progress driven by the Industrial Revolution and colonialism, although it mistakenly identifies Robert Walpole as a prime minister during her reign. It discusses urban migration, resulting in poverty, crime, disease, and child labour due to the lack of worker rights, and mentions key reforms such as women's colleges, compulsory education, the abolition of slavery, public health acts, the first metro, and the Suez Canal. The grammar is generally sound, but there are minor errors and awkward phrasings.

ChatGPT version: "Queen V's Reign: A Humorous Journey through the Victorian Era"

Ah, the Victorian era! It all kicked off when that bonny lass Victoria snagged the throne from her old man, King William IV, on June 20th, 1837. This period was a real hoot, filled to the brim with progress, thanks to the industrial revolution and the whole colonialism shebang that gave Britain a bit of a boost. Life was a whirlwind for the Brits back then! Rural areas became ghost towns as everyone scrambled to the cities for that

sweet promise of more cash and a step up the ol' social ladder. But let me tell ya, it wasn't all sunshine and rainbows. Poverty skyrocketed in those overcrowded city streets, bringing along its pals crime and disease. And talk about child labor! Kids were toiling away in factories left and right because, well, nobody had bothered to jot down any worker rights yet. But fear not, for Queen Vicky swooped in like a hero with her trusty sidekicks Parliament and Prime Minister Robert Walpole. They whipped up some laws to protect the common folk, like opening women's colleges, making school mandatory for ten years (good luck getting out of math class, kiddos), and even putting the kibosh on slavery in the British Empire! And let's not forget the cherry on top: the world's first subway and the Suez Canal, making trade between colonies a breeze. Queen Victoria may have shuffled off this mortal coil in 1901 at a ripe old age of 81, but she left behind a legacy that'll have history buffs chuckling for centuries to come. Cheers to you, Queen V.

The ChatGPT version maintains factual accuracy without addressing or correcting the original version's errors but employs an overly informal and humorous tone. While this approach makes history engaging, it can also trivialize significant events. The version correctly integrates historical facts with engaging humour but is unsuitable for academic contexts due to its conversational style. It appears that ChatGPT responded to the students' directive to restyle their original text in a more humorous or tabloid manner. However, the issue arises from the students' oversight in not instructing ChatGPT to verify and correct any factual inaccuracies, resulting in unaddressed factual errors in their submission.

Final version: "Victoria's Legacy: Progress and Reform in the Victorian Era"

The Victorian era commenced on June 20th, 1837, with the ascension of Queen Victoria to the British throne, succeeding her father, King William IV. This era marked a period of significant progress, spurred by the industrial revolution and the economic and geopolitical impacts of colonialism. The rapid industrialization led to a mass migration from rural areas to urban centers, driven by promises of better pay and social advancement. However, this influx resulted in burgeoning poverty, crime, and disease in overcrowded cities, exacerbated by the lack of worker rights legislation, leading to child labor exploitation. Queen Victoria, along with Parliament and Prime Minister Robert Walpole, addressed these societal challenges by enacting various reforms. These included the establishment of women's colleges, compulsory education up to ten years, the abolition of slavery within the British Empire, and the implementation of the first public health act to combat diseases such as cholera. Additionally, groundbreaking infrastructural projects, such as the world's first subway and the construction of the Suez Canal, revolutionized trade between colonies. Despite the era's hardships, Queen Victoria's reign, spanning 63 years until her death at the age of 81 in 1901, left a lasting legacy of progress and reform. Her efforts, alongside the contributions of Parliament and Prime Minister Walpole, significantly improved the lives of British citizens and shaped the course of history for centuries to come. And with a dash of humor and wit, the tale of Queen Vicky's reign continues to entertain and educate history enthusiasts worldwide.

The final version combines the students' factual foundation (still with factual errors) with the engaging elements of ChatGPT's style, maintaining a balanced mix of formal and engaging tones. It accurately describes Queen Victoria's reign, industrialisation, urban migration, resulting societal issues, and key reforms without the earlier factual error, presenting a polished, academically appropriate account with a slightly humorous touch. The final version demonstrates the students' ability to refine and balance content and style, making it the best choice. Unfortunately, it also maintains factual (in)accuracy and academic integrity while incorporating elements of engagement, showing that students effectively synthesised their own work and the suggestions from ChatGPT.

It is recommended that educators closely monitor the commands students provide to ChatGPT, as the effectiveness of the tool in reformulating text heavily depends on the accuracy and specificity of these commands. Ensuring that students include instructions for fact-checking and correcting inaccuracies is crucial, as demonstrated in this instance.

The design thinking approach, particularly in the context of Generation Z, must adapt to their digital fluency and preference for interactive, multimedia content. The contemporary generation of university students and Alphas are deeply embedded in social media and the digital world. They share everything on social networks, prefer watching videos over reading, take photos of everything, and communicate more through pictures than words or text (Miština et al., 2022). In the academic environment, critical thinking and reading comprehension

skills enable both students and teachers to find quality information sources, organize them hierarchically, identify plagiarism, and verify authors' authority (Javorčíková – Badinská, 2021). Consequently, educational strategies must align with these preferences by incorporating technology and interactive elements that resonate with this demographic. The pilot workshops, though preliminary, suggest that AI tools and personalized learning platforms can significantly enhance students' reading comprehension and critical thinking skills, provided they are used thoughtfully and with attention to the evolving needs of digital-native learners. Therefore, it is important to organize workshops where students learn to work with data correctly, evaluate them, improve their reading skills, and avoid future plagiarism. Considering that these were pilot workshops and AI tools have not been used for a long time in our university, we currently have only preliminary data indicating improvements in various skills. Based on feedback gained from the online questionnaire, one-third of students (33%) who attended the workshop and used ChatGPT extensively enhanced their vocabulary and writing style, although they did not see significant improvement in their grammar. Research has shown that personalized learning platforms and practical workshops can significantly enhance students' reading comprehension skills (Liu et al., 2020; Iwata et al., 2020; Akiba et al., 2020; Khan – Mutawa, 2021; Hidayat, 2024). Integrating AI tools and personalized learning platforms holds significant promise for transforming reading education and offering effective solutions for students experiencing difficulties with reading comprehension.

5. CONCLUSION AND FUTURE DIRECTIONS

The integration of AI tools like ChatGPT, Perplexity, and Gemini in educational settings has shown significant potential in enhancing reading comprehension and critical thinking among students. These tools, by offering personalized explanations and encouraging analysis from diverse perspectives, address the challenges faced by Generation Z, often characterized as a "non-reading" generation due to their preference for digital content. The workshops conducted in this research demonstrated how AI tools could effectively raise awareness of gender biases and inequalities in literature and history courses focused on Anglophone cultures.

The application of design thinking principles in these workshops has proven to be a valuable approach to engaging students actively. By following the phases of empathizing, defining problems, ideating, prototyping, and testing, students were able to contribute to their educational content and improve their reading comprehension skills. The workshops emphasized the importance of critical thinking and the need for teachers to guide students in understanding the limitations of AI systems and the societal biases they may reflect.

Preliminary data from these workshops indicate that one-third of students who extensively used AI tools showed significant improvements in their vocabulary and writing style, though grammar improvements were less pronounced. This suggests that while AI tools can enhance certain aspects of language learning, continuous guidance, and adaptation are necessary to address all areas comprehensively.

In conclusion, the integration of AI tools in reading comprehension and the application of design thinking in educational processes hold significant promise. They not only enhance students' engagement and comprehension skills but also promote a deeper understanding of gender issues in literature and history. The careful combination of traditional instructional methods with AI-assisted activities can create a more inclusive and critically engaged learning environment, preparing students to navigate and contribute to the evolving digital landscape effectively.

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REFERENCES

- Aikman, S. and Unterhalter, E., and Challender, C. 2005. The education MDGs: achieving gender equality through curriculum and pedagogy change. In C. Sweetman (Ed.), *Gender and the Millennium Development Goals*. Oxford, Oxfam, UK.
- Akhter, T. 2020. Gender Inequality and Literature: A Contemporary Issue. In *Advances in Social Science, Education and Humanities Research*, Vol. 51. Retrieved from file:///C:/Users/200700/Downloads/125949674.pdf
- Akiba, M. et al. 2020. An AI-based reading comprehension support system for middle school students. In *Journal of Educational Technology Development and Exchange*, Vol. 13, No. 2, pp. 87-98.
- Alderson, J. C. 2000. *Assessing Reading*. Cambridge, Cambridge University Press, UK.
- Badizadegan, D. 2019. *Design Thinking for Musicians: An Introduction*. Retrieved from <https://medium.com/swlh/designthinking-for-musicians-an-introduction-fe8451f6b8fe>
- Bem, S. L. 1993. *The Lenses of Gender: Transforming the Debate on Sexual Inequality*. New Haven, Yale University Press, USA.
- Bohušová, Z. The cognition of interpreting and neutralization. In *Voprosy kognitivnoj lingvistiki = Issues of Cognitive Linguistics*, Vol. 13, No. 4, pp. 58-68.
- Brooks, Ch. 2022. Incorporating Design Thinking in the Study of Literature. In *Edutopia*. Retrieved from <https://www.edutopia.org/article/incorporating-design-thinking-study-literature/>
- Brown, T. 2008. Design Thinking. In *Harvard Business Review*. Retrieved from <https://readings.design/PDF/Tim%20Brown,%20Design%20Thinking.pdf>
- Carlson, S. and Seipel, B. and McMaster, K. 2014. Development of a new reading comprehension assessment: Identifying comprehension differences among readers. In *Learning and Individual Differences*, Vol. 32, pp. 40-53.
- Carter, T. 2018. Preparing Generation Z for the Teaching Profession. In *SRATE Journal*, Vol. 27, No. 1, pp. 1-8.
- Dančíšínová, L. and Kozárová, I. 2021. *Globalizácia, kultúra, interkultúrna komunikácia a kultúrna inteligencia vo vzájomných súvislostiach: dosahy pre interkultúrny manažment*. Prešov, Vydavateľstvo Prešovskej university, Slovakia.
- Fisher, D. and Frey, N. 2020. *The distance learning playbook, grades K-12: Teaching for engagement and impact in any setting*. California, Corwin, USA.
- Haerazi, et al. 2018. Incorporating Intercultural Competences in Developing English Materials for Writing Classes. In *Journal of Language Teaching and Research*, Vol. 9, No. 3, pp. 540-547.
- Hafner, C. A., and Pun, J. 2020. Editorial: Introduction to this Special Issue: English for Academic and Professional Purposes in the Digital Era. In *RELC Journal*, Vol 51, No. 1. pp. 3-13.
- Harmer, J. 2003. *How to teach English*. London, Longman, UK.
- Hidayat, M. T. 2024. Effectiveness of AI-Based Personalised Reading Platforms in Enhancing Reading Comprehension. In *Journal of Learning for Development*, Vol. 11, No. 1, pp 115–125.
- Iwata, Y. et al. 2020. An AI-based writing feedback system for improving reading comprehension skills. In *Educational Technology Research and Development*, Vol. 68, No. 4, pp. 1739-1759.
- Javorčíková, J. and Badinská, M. 2021. Reading and Critical Thinking Skills of Undergraduate Students: A Quantitative Analysis. In *The Journal of Teaching English for Specific and Academic Purposes*, Vol. 9. No. 4. pp. 655-666.
- Khan, A. and Mutawa, M. 2021. Enhancing reading comprehension skills of Arab EFL learners using an AI-based personalised reading platform. In *International Journal of Emerging Technologies in Learning*, Vol. 16, No. 6, pp. 119-136.
- Kirsch, I. et al. 1993. *Adult literacy in America: A first look at the results of the National Adult Literacy Survey*. New Jersey, U.S. Department of Education. Office of Educational Research and Improvement, USA.
- Kováčiková, E. and Kráľová, Z. 2021. Positive Views and Challenges of Using Project Work in ESP Lessons. In *Journal of Teaching English for Specific and Academic Purposes*, Vol. 9, No. 1. pp. 31-41.
- Lestari, S. and Usadiati, W. and Misrita, M. 2022. The Correlation between Students' Artificial Intelligence and their English Reading Skills Achievement. In *Bahasa: Jurnal Keilmuan Pendidikan Bahasa dan Sastra Indonesia*, Vol. 3, No. 2. pp. 103-111.
- Liu, Y. et al. 2020. An AI-based personalised reading platform for Chinese primary school students. In *Journal of Educational Technology Development and Exchange*, Vol. 13, No. 1, pp 1-16.
- Mikulecky, B. S. and Jeffries, J. 2004. *More Reading Power. Reading for Pleasure, Comprehension Skills, Thinking Skills, Reading Faster*. New York, Longman, USA.

- Miština, J. et al. The Impact of the Pandemic Crisis on Technology Standard of Traditional University Education. *In Mobility for Smart Cities and Regional Development - Challenges for Higher Education. ICL 2021. Lecture Notes in Networks and Systems*, Vol. 390, pp 187–198.
- Plattner, H. et al. 2011. *Design Thinking. Understand – Improve – Apply*. Heidelberg, Springer, Germany.
- Pondelíková, I. 2022. Design thinking ako moderný spôsob výučby interkultúrnej komunikácie. *In Interkultúrna komunikácia vo výučbe odborného cudzieho jazyka*. pp. 95–104.
- Pondelíková, I. 2023. Design Thinking for Specific Purposes. Comparative Study of Design Thinking Technique to Enhance Educational Process for Students of English and Teachers of Various Academic Fields. *In The Journal of Teaching English for Specific and Academic Purposes*, Vol. 11, No. 3, pp. 633-650.
- Rasouli, F. and Ahmadi, O. 2021. The Motivational Impact of Enhancing Reading Comprehension through Pictorial Fictions on the Involvement of Iranian EFL Students in Writing Activities. *In Cihan University-Erbil Journal of Humanities and Social Sciences*, Vol. 5, No. 1, pp. 82-87.
- Robinson, K. 2011. *Out of Our Minds: Learning to be Creative*. Mankato, Capstone. USA.
- Sirotová, M. 2022. *Efektívne učenie vo vysokoškolskej edukácii*. Trnava: Univerzita Sv. Cyrila a Metoda v Trnave, Slovakia.
- Sperling, R. 2022. Design Thinking in the Second Language Classroom. *In CASLT*. 2022. Retrieved from <https://www.caslt.org/en/blog-design-thinking/>
- Stranský, M. 2023. Jak nástup digitální technologie negativně ovlivňuje mysl a budoucnost našich dětí. *In blog.aktualne.cz*. Retrieved from <https://blog.aktualne.cz/blogy/martin-jan-stransky.php?itemid=46117>
- Stryker, S. 2008. *Transgender History*. New York, Seal Press, USA.
- Thompson, L. and Schonthal, D. 2020. The Social Psychology of Design Thinking. *In California Management Review*, Vol. 62, No. 2, pp. 84 - 99.
- von Flotow, L. 1997. *Translation and Gender: Translating in the Era of Feminism*. Ottawa, University of Ottawa Press, Canada.
- Welnitzová, K. 2023. *Chybovosť strojového prekladu*. Praha, Verbum, Czech Republic.
- What is Design Thinking (DT)? *In Interaction Design Foundation*. Retrieved from <https://www.interaction-design.org/literature/topics/design-thinking>
- What is design thinking? 2023. *In McKinsey & Company*. Retrieved from <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-design-thinking>
- Wilkinson, L. and Silliman, E. 2007. *Language and Literacy Learning in Schools*. New York, Guilford Press, USA.
- Wrigley, C. and Straker, K. 2015. Design Thinking pedagogy: the Educational Design Ladder. *In Innovations in Education and Teaching International*, Vol. 54, No. 4, pp. 374-385.
- Wrigley, C. et al. 2020. Implementing Design Thinking: Understanding Organizational Conditions. *In California Management Review*, Vol. 62, No. 2, pp. 125-143.