Leveraging the Power of Lateral Reading: The Need for its Inclusion in EAP Style Research Reading and Writing Courses

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Abstract

Japan's higher educational environment is becoming increasingly digital in the post-COVID world, as most students at Japanese universities now have laptops and/or tablet devices. Furthermore, the number of information sources online is also increasing exponentially. In response, university students of today (both in Japan and elsewhere) have to learn how to efficiently navigate the dense forest of available information to assess the accuracy and validity of the data they have found in their research reading. This is where a lateral reading strategy is essential for undergraduate students as it improves their ability to evaluate sources more efficiently than traditional reading strategies. This paper discusses the benefits of lateral reading for university students in EAP courses and the challenges students may face when learning these skills. It also gives an evidence-based rationale for including lateral reading skills in EAP programs, and recommendations on to how to implement lateral reading into EAP courses. This will help prepare students for success in the rigorous critical thinking demands of the academic research writing they will encounter in their university lives, and beyond in their future careers.

Introduction

The proliferation of online information, combined with the COVID-driven move to more online learning and content, has fundamentally changed how undergraduate students access and evaluate sources for academic work. While the Internet provides unprecedented access to information for students, it also presents significant challenges in terms of assessing the credibility and reliability of online sources (Wineburg & McGrew, 2019). Many students lack the digital literacy skills to effectively evaluate online information, often relying on unreliable heuristics or falling victim to misinformation (McGrew et al., 2018). Traditional approaches to source evaluation that focus on vertical reading — carefully examining a single webpage or document — are no longer sufficient in the digital age. Instead, lateral reading,

which involves leaving a webpage to investigate its credibility through other sources, has been identified as a more effective strategy for assessing online information (Wineburg & McGrew, 2019). As Wineburg and McGrew have noted, even educated and intelligent people fall victim to misinformation, so this inability to read laterally is not only an issue for students but the wider population as well.

For Japanese undergraduate students who have passed through the Japanese school system into tertiary education, the problem is particularly acute. There have been some well-known historical critiques of the Japanese educational system (McVeigh, 2002; Schoolland, 1990). However, although the levels of critical thinking have improved at schools in Japan between 1999 and 2014 (Okada, 2015, p. 1054), students still seem reluctant to put critical thinking skills into practice. Furthermore, these students seldom encounter English longer-form research essays (where critical thinking skills are vital for evaluating sources used in these types of tasks) at school, and as a result, when they reach university level and/or take part in study abroad / EMI (English Medium Instruction) university programs they cite research writing as a very difficult task (McCarthy, 2021, p. 13). In this context, English for Academic Purposes (EAP) programs at Japanese universities play an important role in preparing non-native English-speaking students for the academic rigors of undergraduate study in English-medium universities. While EAP programs traditionally focus on academic language skills like academic writing and reading comprehension, there is a growing recognition that information literacy skills are equally important for students' academic success (Hyland & Shaw, 2016). As Wineburg and McGrew argue, "In the digital age, we must teach students not only how to read texts but how to read sources" (2017, p. 1).

Therefore, EAP programs should incorporate explicit lateral reading instruction (a key strategy used by professional fact-checkers to evaluate online sources) to better prepare students for academic study in English-medium institutions. Lateral reading involves leaving a website to investigate its credibility through other sources rather than staying on the original site (Wineburg & McGrew, 2019). As Japanese universities have fewer hard-copy books in English than Japanese ones, students rely more on online English sources for their academic work. Therefore, by teaching lateral reading, EAP programs can equip students with a crucial skill for applying critical thinking to help them cut their way through the online information jungle and succeed in their academic research writing. Paterson has described his approach to integrating lateral reading and other digital literacy reading and writing skills into academic reading and writing programs via an e-portfolio system (Paterson & Hakone, 2024).

Defining Lateral Reading

The concept of lateral reading emerged from the work of researchers at the Stanford History Education Group, comparing how professional fact-checkers, historians, and Stanford undergraduate students evaluated online information (Wineburg & McGrew, 2017). They found

that professional fact-checkers used this reading strategy to quickly and accurately assess the credibility of online sources by using distinctly different strategies from the other groups, with the key difference being that fact-checkers quickly left an unfamiliar website to see what other sources said about it. This practice of "reading laterally" across many tabs allowed fact-checkers to efficiently determine the credibility of sources. However, they found professors and students tended to use the more traditional vertical reading style of staying on a document or paper and reading straight through until the end and carefully parsing its content, a practice which often led them to be deceived by unreliable sources with professional-looking documents and/or websites.

Wineburg and McGrew (2018) then went on to define lateral reading as follows, "When reading laterally, one leaves a website and opens new tabs along the browser's horizontal axis, drawing on the resources of the Internet to learn more about a site and its claims. Fact checkers, in short, learned most about a site by leaving it" (p. 53). So rather than spending time carefully reading and analyzing the content of an unfamiliar document or website, lateral readers open new browser tabs to investigate the credibility of the source of the text. This approach contrasts with "vertical reading," where readers stay on a single document or website and scroll up and down to evaluate its credibility based solely on the paper or site's claims and appearance.

Again according to Wineburg and McGrew (2017), lateral reading involves four key practices:

1 - Taking bearings (p. 13): Before diving into unfamiliar content, lateral readers take a moment to understand the broader digital landscape they have entered as a kind of background check of the issue being researched.
2 - Click restraint (p. 32): Instead of instantly clicking on the first search result, lateral readers scan the results list to get a sense of the information available and the scope of the results.
3 - Lateral moves (pp. 22–25): Readers then open an item from the search results for an initial look and then leave the original site to open new tabs and investigate its credibility through other sources.
4 - Search Skills (p. 26) – Even when readers do possess the three skills described above, these do not automatically guarantee success, especially if the readers do not know how to search efficiently using Boolean operators such as "quotation marks" in combination with relevant keywords to further narrow the search results.

In combination then, these four practices allow lateral readers to efficiently gather context about sources and make informed judgments about their reliability instead of just going ahead and taking the results at face value and using them. Lateral reading also forms part of the SIFT strategy for student fact-checking (Caulfield, 2017) and is held in high regard (Baer & Kipnis, 2023) as a necessary bridge between lateral reading and critical reading.

Literature Review

There is an extensive body of work covering a variety of aspects of why students need lateral reading, its effectiveness in a variety of educational settings (including EAP courses), and the challenges that can be encountered. These will be covered below, and the importance of lateral reading will become clearer. The current need for lateral reading skills has become increasingly urgent as the internet has transformed how information is produced, disseminated, and consumed, especially in the post-COVID education landscape. As such, several different factors make lateral reading highly relevant for students in the modern world.

Information Overload

The sheer volume of information available online can be overwhelming for students. Students may struggle to identify reliable information amidst the data 'noise' without effective strategies for quickly assessing source credibility.

Misinformation and Disinformation

The spread of false and misleading information online (the so-called 'fake news' and 'deepfakes') poses significant challenges for students conducting academic research. Lateral reading provides a powerful tool for identifying and avoiding unreliable sources.

Search Engines Bias & Algorithmic Curation

Search engines and social media platforms usually employ algorithms to personalize the information users see, potentially creating filter bubbles that limit exposure to diverse perspectives as other viewpoints are seen as not relevant to users by search engine algorithms. Lateral reading helps students break out of these bubbles by actively seeking out additional context and alternative viewpoints.

Challenges to Authenticity

Traditional displays of authenticity and, by extension, credibility, such as professional-looking websites or academic credentials, are no longer reliable indicators of trustworthy information online due to software that can create authentic-looking sites, documents, and other information sources. Lateral reading allows students to look beyond the surface-level features of sources to more deeply investigate a source's reputation and track record. Given the above factors, the ability to employ lateral reading strategies has become a crucial component of digital literacy and critical thinking in the 21st century.

Effectiveness of Lateral Reading Instruction

Research has highlighted the effectiveness of lateral reading instruction in improving students' ability to judge the credibility of online sources. The Stanford History Education

Group compared how historians (with PhD's and publications in history), professional fact checkers for major organisations, and undergraduate students from Stanford University, an elite US institution, evaluated websites and online documents (Wineburg & McGrew, 2017). Wineburg and McGrew also found that fact-checkers who used lateral reading were significantly more successful at correctly identifying the credibility of websites compared to historians and Stanford students. The fact-checkers "arrived at more warranted conclusions in a fraction of the time" (Wineburg & McGrew, 2017, p. 1). One of their conclusions was, "…when the goal is to quickly get up to speed, the close reading of a digital source, when one doesn't yet know if the source can be trusted (or is what it says it is)—proves to be a colossal waste of time" (Wineburg & McGrew, 2017, p. 43).

Lateral Reading in Higher Education

Studies have examined the effectiveness of lateral reading instruction for college and university students. Brodsky et al. (2021) conducted a study with undergraduate students on comparing the effects of lateral reading instruction with more traditional vertical reading. They used the American Democracy Project's Democracy Policy Initiative (DPI) curriculum for the test group and did not with the control group. The study also looked at how the participants used Wikipedia and the levels of trust they had in it as many instructors, librarians and others had previously told students it was unreliable. They found that students who received the DPI lateral reading training performed significantly better on tasks requiring them to evaluate the credibility of unfamiliar websites, and students engaged in lateral reading far more often after the intervention, "Our findings indicate that the DPI curriculum increased students' use of lateral reading to draw accurate assessments of the trustworthiness of online information" (Brodsky et al., 2021, p. 15). Similarly, McGrew et al. (2018) implemented a lateral reading curriculum in a first-year writing course at a US university. Students who received the instruction showed significant improvements in their ability to evaluate online sources compared to a control group. Importantly, the researchers found that these skills transferred to new contexts beyond the specific examples used in the training. Another later study (McGrew et al., 2019) of 67 students at a US university found that teaching some techniques (including lateral reading) for evaluating the credibility of sources can improve students' performance in this area. These studies therefore, provide evidence for the effectiveness of lateral reading as a strategy and tool for critically evaluating online sources of information.

Lateral Reading Needs of EAP Students

The ability to critically evaluate online sources is vitally important for undergraduate students. As Breakstone et al. (2018) note, "College students are among the most avid consumers of online information, yet many struggle to evaluate the credibility of what they find" (p. 1). This struggle is even more pronounced for non-native English-speaking students in EAP programs, who must also understand complex academic texts in a second language in addition

to evaluating the credibility of the texts. Therefore, EAP programs while useful in preparing international students for study at English-medium universities (as they help develop students' academic language abilities in the four skills — reading, writing, listening, and speaking), they seldom address the challenges of improving students critical thinking, digital literacy, and other online research skills needed for judging the credibility of academic texts. Therefore, the specific needs of EAP students in terms of critical thinking and how lateral reading instruction can support their academic development in this area must be addressed.

Research on lateral reading for English language learners (ELLs) is currently limited, however, some studies suggest that explicit instruction can benefit this student demographic. For example, Amazeen and Bucy (2019) conducted a study with 121 international students in an intensive English program. They found that students who received training in lateral reading strategies showed greater improvements in their ability to detect misinformation compared to those who only received traditional media literacy instruction. EAP programs (and non-EAP undergraduate students) rely heavily on online sources for academic work. A study by Head and Eisenberg (2010) found that 95% of students use the Internet for course-related research, and Japanese EAP students also rely on the internet for English sources given most Japanese universities do not have huge English libraries. Therefore, EAP programs need to prepare students for this internet-based research reality. In addition, academics at Western universities complain about the performance of Asian (and by extension Japanese) students in critical thinking areas, "The complaints made by Western academics about Asian students are concerned with a very specific issue: the formulation of arguments in essay writing and/or academic discussion" (Rear, 2017, p. 27).

As shown above, research has shown that college students, including those at elite universities, struggle to distinguish between reliable and unreliable online sources (McGrew et al., 2018). EAP students may be particularly vulnerable to this evaluation issue due to language barriers and their relative unfamiliarity with English-language media publication norms. Related to this issue for EAP students is the ability to critically evaluate sources for maintaining academic integrity. As Li and Casanave (2012) argue, EAP programs are key in teaching students how to avoid plagiarism and properly integrate sources. Lateral reading aligns with academic conventions of corroborating sources via proper referencing and considering multiple perspectives for a broader viewpoint on issues. Therefore, it can help students develop the critical thinking skills valued in higher education and their future careers, as lateral reading is a transferable skill that can benefit students across disciplines.

Challenges Faced by EAP Students

When using lateral reading strategies, EAP students face several challenges when it comes to evaluating online sources for academic purposes. The level of their English proficiency can sometimes make it difficult for students to critically analyse complex texts, so they can fail to identify more subtle indicators of credibility or bias. Many other EAP students come from

educational backgrounds with different expectations for source usage and citation, and this is especially prevalent in East Asia, especially Japan, where Western-style academic referencing is not commonly taught (Dunn, 2015, p. 33; Schraudner, 2015). Some researchers have argued this can be due to cultural differences in how plagiarism is viewed (Chandrasoma et al., 2004; Chien, 2014) or a lack of linguistic skills leading to copy-and-paste style writing (Pecorari & Petric, 2014; Wheeler, 2009). So, depending on their cultural backgrounds, some EAP students may need to adapt their existing academic research and writing strategies to meet the expectations of Western academic institutions. Another issue facing some EAP students is their inability to accurately distinguish between scholarly and non-scholarly sources. They can tend to over-rely on search engine results as they can view the fact of a source document being present in search engine results, which means it is factually accurate and credible as a source. This can potentially lead them to use sources lacking in credibility.

Benefits of Lateral Reading for EAP Students

Introducing the concepts and skills used in lateral reading into EAP programs can help address some of these critical thinking type issues and problems listed above, and in addition, it can also provide several other key academic benefits for students. Lateral reading itself offers a structured and systematic approach for efficiently and quickly assessing the credibility of sources, especially when used in combination with the SIFT system mentioned above (Caulfield, 2017). This is particularly valuable for non-native English speakers who may read academic documents and texts more slowly and less critically when they are written in their second language. Tools like Rewordify are very useful in this area for students who have problematic vocabulary issues, and its utility in this area is well understood and is used by digitally literate teachers and students (Paterson & Hakone, 2024, pp. 4–6) in academic research writing courses.

Practicing lateral reading itself can also help further develop students' overall critical thinking mindsets, thereby helping them approach the reading of challenging academic texts with a more analytical view. This, in turn, can help improve their overall digital literacy skills by allowing students to encounter, evaluate, and understand a wider range of online sources than they would without lateral reading skills. The breadth of different types of sources encountered in this lateral reading can also lead to a better understanding of academic conventions and styles by students, as this exposure to various types of sources can help them distinguish between scholarly and non-scholarly conventions for documents and sources and thereby improve their confidence in recognizing such sources. Lastly, if the sources used are credible, then they can also provide students with examples of good referencing styles, which can help students develop good academic integrity habits for source use in their own written work by modeling their writing style on these sources, and this can help them avoid unintentional plagiarism.

Alignment With EAP Learning Outcomes

Integrating lateral reading instruction into EAP programs aligns with commonly used learning outcomes (LO's) and learning outcome indicators (LOI's) and can enhance existing curriculum areas such as:

1 - Academic reading: Lateral reading complements traditional intensive (deep) reading and extensive reading techniques by developing students' ability to evaluate and select appropriate texts efficiently. Also, when conducting lateral reading, students can also bring in the scanning and skimming techniques they usually learn in traditional reading instruction to aid in their extensive lateral reading work.

2 - Academic writing: Improved source evaluation skills support students in selecting credible evidence for their academic writing tasks. This in turn helps raise the quality of papers they write by having them utilise only quality sources in their research to base their conclusions on.

3 - Research skills: Lateral reading is essential for conducting effective online research, a key skill for the writing component of most EAP programs. All academic research papers are only as good as the data and ideas they are built on, and using lateral reading to identify credible sources to use helps in this regard.

4 - Critical thinking: The analytical thought processes used in lateral reading directly contributes to developing students' critical thinking skills. The fruits of the labour of lateral reading (the data, ideas, information, and quotations they harvest in their research) can then be used in many other academic activities such as debates, discussions, oral presentations, and of course their academic research writing papers.

5 - Academic culture: Teaching lateral reading can also help expose students to the Western academic expectations for the evaluation of sources, usage of only credible sources, and proper referencing of these curated sources in their academic output.

Therefore, by addressing these specific student needs and aligning them with the existing LO's and LOI's present in most EAP programs, lateral reading instruction can significantly enhance the effectiveness of EAP programs in preparing students for academic study in EMI-type environments and beyond.

Recommendations for Integrating Lateral Reading Into EAP Curricula

Based on the research on lateral reading and its relevance for EAP students as covered in the literature review above, this paper recommends the following approaches for incorporating lateral reading instruction into EAP curricula. Guidance on lateral reading concepts and techniques should be provided to students in parallel with other more traditional reading

strategies. This includes demonstrating the specific steps involved in lateral reading such as opening new tabs, using search engines to investigate sources, and providing examples of how professional fact-checkers use lateral reading. Brodsky et al. (2021) found that even brief instruction on lateral reading techniques led to significant improvements in students' ability to evaluate online sources.

In addition, guided practice with authentic materials should be providing to students so they have opportunities to practice lateral reading in a step-by-step way with materials drawn from their academic fields of study. Li and Casanave (2012) highlight the importance of teaching the use of sources as a situated practice within academic disciplines.

Another area where lateral reading can be introduced into EAP programs is by the usage digital literacy type tools: EAP programs should introduce students to digital tools that can aid in lateral reading, such as fact-checking websites like Snopes and PolitiFact, browser extensions for source evaluation like NewsGuard, the use of Wikipedia's own evaluation tools such as the article's status (Featured Article, Good Article, A, B and other grades), and reverse image search tools for verifying visual information. Brodsky et al. (2021) found that introducing students to these types of fact-checking resources enhanced their ability to evaluate online information.

Students also need to be assessed on their lateral reading skills. Therefore, EAP programs should track students' lateral reading skills to measure their abilities and see how well they are progressing in this regard. A study (McGrew et al., 2018) found students "…were instead swayed by content that appeared to present strong evidence (in the form of photographs, data displays, etc.), and they judged websites based on superficial features such as their graphic design or how authoritative their logo or references made them seem." Lastly, language barriers may also make lateral reading more difficult for non-native English speakers, so by using tools like Rewordify (Paterson & Hakone, 2024, pp. 4–6) these linguistic type limitations can be addressed and instructors should be ready to deploy such apps and tools when needed.

Conclusion

As the digital information forest becomes increasingly dense, the ability to critically navigate the evaluation of online sources has become an essential skill for undergraduate students in general and EAP undergraduate students in particular. Lateral reading, therefore, offers a powerful strategy for navigating this landscape, allowing students to efficiently and accurately assess the credibility of online documents, sources, other texts, even videos and the information they present. By incorporating lateral reading instruction into their curricula, EAP programs can help equip non-native English-speaking students to develop a crucial skill set for academic success. By incorporating lateral reading instruction, EAP programs can play a vital role in preparing students for the demands of undergraduate study and fostering critical digital literacy skills that will serve students in their academic lives and beyond in their future careers.

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