STUDENTS’ ENGLISH LEARNING STRATEGIES ASSISTED WITH E-RESOURCES IN BLENDED LEARNING

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Abstract

Blended learning yields some challenges and difficulties for learners, and they should have an appropriate strategy to deal with the use of e-resources. This research aimed at: (1) explaining the various learning strategies used by students to learn English using e-resources in blended learning, and (2) determining the factors that influence their choice of these strategies. The researcher used descriptive-quantitative methods in this study, with the participants involving 2 universities. The SILL questionnaire and interviews were used to collect the data.

The results showed that the participants mostly used the metacognitive method, with an average of 3.86. The study also revealed that students used five other methods, including cognitive (M = 3.35), compensation (M = 3.34), affective (M = 3.20), social (M = 3.16), and memory (M = 3.14). Moreover, students’ use of these strategies was influenced by some factors, including motivation to learn English, learning style, and ease of learning. In conclusion, the various strategies employed for learning English were different, as were the factors influencing strategy selection by each participant. This research provides meaningful insights into how the blended learning can be boosted through the implementation of appropriate learning strategies, particularly related to the use of e-resources, so that it will increase students’ comprehension and achievement during the learning process.

INTRODUCTION

In the twenty-first century, the proliferation of information technology is experiencing significant growth (Danuri, 2019). The rapid progression of information technology has ushered in a new epoch of globalization (Maghfiroh et al., 2020). According to Pajriani (2020), various dimensions of human existence are transforming, encompassing the realms of economics, socio-cultural dynamics, and education. Technological advancements in education can be seen in the move from face-to-face learning in the classroom to online or a combination of face-to-face and online (blended learning).

Meanwhile, research that seeks to examine the effect of blended learning, as the most effective and efficient combination of face-to-face teaching and online learning also continues to increase (Wang, 2022). Blended learning brings positive effects on both learner autonomy and students’ motivation constructs in the blended learning compared to the conventional learning (Wong et al., 2020), students’ social presence in an online learning community and their interaction also helps learners learn more effectively (Li, 2022). Blended learning enhances instructors’ learning processes, provides practical opportunities for independent, relevant, and ever-increasing learning, and allows educators more scheduling freedom by...
integrating face-to-face and online training (Ramadhani, 2020). The integration of face-to-face and online learning has both positive and negative impacts. Effective instructional materials and collaboration between teachers, parents, and educators are crucial for successful learning (Musoffa, 2021).

In EFL learning context, blended learning improved EFL learners’ achievement in writing skill as a whole and writing sub-skills (Dousti & Amirian, 2023), significantly enhanced listening performance and reduced listening anxiety (Qiu & Luo, 2022), learners’ willingness to communicate, self-efficacy (Fan, 2022), and improve students’ engagement in different activities (Huang et al., 2022). Blended learning affect so much on English language learning that is aided by technology, such as the usage of multimedia, numerous applications, and digital technology-based learning materials. This is because electronic resources come in a number of media, such as photos and photographs, video and audio recordings, electronic books and journals, digital document databases, and so on. These resources are only accessible through electronic means, such as storing and retrieving them, because they are only available in electronic format (Polade, 2021), it grants users access to a vast collection of knowledge (Kavithanjali, 2019).

Some previous studies on the usage of electronic resources have been conducted such as study on undergraduate students' e-resource usage at the University of Peradeniya found that e-resources are helpful in academic performance and course assignments, but only 28.4% use them for research (Gunasekera et al., 2021). Frimpong & Addo (2020)’s research shows increasing usage of electronic resources in public universities, primarily for research and access to printing and document reproduction services, despite the necessity for accessing information. Furthermore, a study by Naik et al. (2019) found that 66.02% of library patrons use electronic resources twice or three times a week, while only 21.09% use them daily. Dayakar (2018) highlights the challenges of managing e-resources, such as preference selection, purchase, protection, and management.

However, when shifting from traditional classroom education to online distance education that is assisted with e-resource, students face challenges and difficulties due to limited interaction in online learning (Almusharraf & Almusharraf, 2021; Li, 2022). Another challenge is to understand the materials and e-resources provided by their lecturers, especially during the online learning part (self-regulated learning) (Broadbent, 2017; Hua & Wang, 2023; Jiang et al., 2021; Prasad et al., 2018). Therefore, in order to realize high-quality learning, it is equally important to come up with a learning strategy that best suits the student's condition, learning style, and comfort in learning. One study revealed that students who have a pleasant cooperative experience during online learning, usually have a high sense of foreign language enjoyment, give satisfactory marks to their performance, and feel confident in their ability to achieve better foreign language performance in the future (Clifford & Reisinger, 2019; Zheng & Zhou, 2023). According to Oxford (1990), it is common for students to develop their own study strategies as a means of enhancing their academic performance.

In this regard, this study aims to explore, first, the various learning strategies used by students to learn English using electronic resources in blended learning, and second, to determine the factors that influence their choice of these strategies. To seek answers to these questions, the SILL questionnaire adopted from the questionnaire developed by Oxford was used to analyse students' learning strategies. In the meantime, some students were interviewed to determine their: (1) motivation to learn English, (2) ways they use strategies when learning English, and (3) reasons for students' use of strategies. Their comments serve as the qualitative data of the study. This research may be useful for university EFL teachers and students, especially for those who wish to utilize online or blended learning activities assisted by electronic resources. This research provides meaningful insights into how blended learning can be enhanced through the implementation of appropriate learning strategies, especially in
relation to the use of electronic resources, so as to improve students' understanding and achievement during the learning process.

This research was then aimed at exploring the factors that influence students' tendencies to use this strategy. This research uses quantitative descriptive research methods and uses SPSS version 24 software for data analysis. The findings of this research have the potential to contribute to existing knowledge by enhancing understanding, expanding human understanding, and building a foundation for future research on the strategies used by English language education students in utilizing electronic resources to learn English in blended learning environments, as well as factors that influence this strategy.

**RESEARCH METHOD**

**Research Design**

In the present investigation, a methodological framework grounded in quantitative descriptive analysis is employed to scrutinize the methodologies employed by students within the domain of English language education. Specifically, the study seeks to illuminate the intricacies of strategies harnessed by English language education students when engaging with electronic resources within the context of blended learning environments. Additionally, the study endeavors to identify and analyze the various factors that exert influence on the aforementioned strategies. To achieve these objectives, a comprehensive approach is adopted, combining both quantitative and qualitative data collection methods. The integration of quantitative and qualitative data is deemed imperative in this study due to the nuanced nature of the research questions. This dual-method approach enhances the robustness of the investigation by ensuring a comprehensive understanding of the subject matter. The quantitative facet is manifested through the administration of the Strategy Inventory for Language Learning close questionnaire, allowing for the systematic measurement and quantification of students' adopted strategies. Simultaneously, the qualitative dimension is addressed through in-depth inquiries that delve into personal aspects, shedding light on the underlying factors influencing the students' selection of particular strategies. By combining these two distinct yet complementary data sources, this study aspires to furnish a holistic and nuanced portrayal of the strategies employed by English language education students in the utilization of electronic resources within the framework of blended learning environments. This methodological synthesis is anticipated to yield a more comprehensive and insightful understanding of the dynamic interplay between strategies and influential factors in the pursuit of English language acquisition in contemporary educational settings.

**Population and Sample**

This research was conducted within the academic settings of two prominent universities in East Java, Indonesia—namely, Universitas Muhammadiyah Ponorogo and Institut Agama Islam Negeri Ponorogo (IAIN Ponorogo). The investigation transpired over a defined temporal scope, spanning from January to March 2023. The focal demographic for this study exclusively comprised students actively pursuing a major in English education within the aforementioned academic institutions. The sample selection process was meticulously executed, specifically targeting students enrolled in their sixth semester. The inclusion criteria for this cohort were predicated on their exposure to blended learning methodologies during and subsequent to the Covid-19 pandemic. The rationale behind this selection criterion aimed at capturing insights from individuals who had undergone two years of blended learning experiences, thereby possessing a comprehensive understanding of the nuances associated with this educational modality. To facilitate a purposive sampling strategy, the researcher deliberately identified and recruited participants who met the specified criteria, ensuring a cohort that had actively engaged with e-resources for their academic pursuits. This strategic approach to participant selection is designed to provide a nuanced and focused examination of the strategies employed by students.
in the context of blended learning environments, shedding light on the unique dynamics and challenges faced by individuals with prolonged exposure to this mode of education.

Table 1
The detail of participants

<table>
<thead>
<tr>
<th>Institution</th>
<th>Sex</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universitas Muhammadiyah Ponorogo</td>
<td>Male</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>17</td>
</tr>
<tr>
<td>IAIN Ponorogo</td>
<td>Male</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>52 students</strong></td>
</tr>
</tbody>
</table>

Instruments

The researcher used two instruments. First, a closed questionnaire was used in this study, which adopted the Strategy Inventory for Language Learning (SILL) questionnaire from Oxford (1990). There are 50 statements, and they are divided into six categories: memory strategies (which reflect the ability to remember well), cognitive strategies (which reflect the use of mental processes), compensatory strategies (which reflect filling in knowledge gaps), metacognitive strategies (which reflect organizing and assessing learning), affective strategies (which reflect controlling emotions), and social strategies (which reflect learning with others). Each of the 50 questions in the SILL is divided into six categories. Each question has five possible answers that students can choose from, such as always, often, sometimes, rarely, and never.

Table 2
The detail of SILL questionnaire

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Category of Strategy</th>
<th>Statement Items</th>
<th>Number of Statement Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>Memory Strategies</td>
<td>9</td>
<td>1-9</td>
</tr>
<tr>
<td>Part B</td>
<td>Cognitive Strategies</td>
<td>14</td>
<td>10-23</td>
</tr>
<tr>
<td>Part C</td>
<td>Compensation Strategies</td>
<td>6</td>
<td>24-29</td>
</tr>
<tr>
<td>Part D</td>
<td>Metacognitive Strategies</td>
<td>9</td>
<td>30-38</td>
</tr>
<tr>
<td>Part E</td>
<td>Affective Strategies</td>
<td>6</td>
<td>39-44</td>
</tr>
<tr>
<td>Part F</td>
<td>Social Strategies</td>
<td>6</td>
<td>45-50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>50 Items</strong></td>
</tr>
</tbody>
</table>

Second, a qualitative dimension was incorporated into this study through a structured three-question interview format. The interview protocol sought to glean deeper insights into specific aspects of the participants' experiences. The first question probed into the motivational factors underpinning the students' engagement with the study of English. This inquiry aimed to uncover the underlying driving forces that impel students to invest time and effort in mastering the language. The second question delved into the methodologies and strategies adopted by the students in their pursuit of English language proficiency. This line of questioning aspired to elucidate the diverse approaches and cognitive frameworks employed by the participants during the learning process. Lastly, the third question aimed to discern the rationale behind the students' selection and application of particular strategies. By soliciting responses regarding the reasoning behind strategy utilization, the study aimed to unravel the cognitive and contextual considerations influencing the students' decision-making processes. This triangulated approach, encompassing both quantitative data and qualitative insights from the interview component, is intended to provide a comprehensive understanding of the multifaceted dynamics governing students' motivations, strategies, and the rationale behind their chosen approaches to English language learning in blended environments.
Data Analysis

The collected data was analyzed in three steps. First, the researcher used Microsoft Excel to categorize the students' scores by category after collecting the data from the SILL questionnaire. There were five scores used to categorize students' language learning strategies: never, rarely, sometimes, often, and always. The data was then analyzed using SPSS version 24 to determine the average score for each category of technique based on the results of students' answers on the questionnaire. Furthermore, the results of the data were grouped according to the criteria (Table 3). Secondly, the results of the statistical analysis were described qualitatively to answer the first question of this study regarding students' learning strategies.

Thirdly, a detailed text analysis of the interview results was conducted. During the process, the two authors extracted and summarized the main themes from each comment and explored the similarities and differences between the different answers. The identified themes were then re-categorized based on common features, and comments that had distinct and unique features were also flagged. The results of this identification were then presented and combined with other relevant information to answer the second question of the study relating to (1) motivation to learn English, (2) the way they use English as a medium of instruction, and (3) reasons for students' use of strategies.

RESEARCH FINDINGS AND DISCUSSION

Research Findings

Students’ Language Learning Strategy

The initial stage of data collection pertaining to students’ language learning strategies encompassed the distribution of questionnaires to a sample of students who were currently enrolled in English Education programs at Muhammadiyah Ponorogo University and IAIN Ponorogo. During the specified period, a survey comprising a comprehensive collection of fifty statements was disseminated.

The questionnaire items were classified into six discrete categories and administered to the participants, accompanied by a selection of five response options. After the questionnaire was successfully completed, the subsequent step involved using SPSS Version 24 to calculate the results. Based on the findings, students with varying levels of intensity have identified and utilized a variety of strategies.

Table 3

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Frequency</th>
<th>Level of Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Always or almost always used</td>
<td>4.5 to 5.0</td>
</tr>
<tr>
<td></td>
<td>Usually used</td>
<td>3.5 to 4.4</td>
</tr>
<tr>
<td>Medium</td>
<td>Sometimes used</td>
<td>2.5 to 3.4</td>
</tr>
<tr>
<td>Low</td>
<td>Generally not used</td>
<td>1.5 to 2.4</td>
</tr>
<tr>
<td></td>
<td>Never or almost never used</td>
<td>1.0 to 1.4</td>
</tr>
</tbody>
</table>

Table 4

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory Strategy</td>
<td>3.14</td>
<td>.46020</td>
<td>6</td>
</tr>
<tr>
<td>Cognitive Strategy</td>
<td>3.35</td>
<td>.51203</td>
<td>2</td>
</tr>
<tr>
<td>Compensation Strategy</td>
<td>3.34</td>
<td>.48715</td>
<td>3</td>
</tr>
<tr>
<td>Metacognitive Strategy</td>
<td>3.86</td>
<td>.56188</td>
<td>1</td>
</tr>
<tr>
<td>Affective Strategy</td>
<td>3.20</td>
<td>.62753</td>
<td>4</td>
</tr>
<tr>
<td>Social Strategy</td>
<td>3.16</td>
<td>.68810</td>
<td>5</td>
</tr>
</tbody>
</table>
The initial discovery from the questionnaire revealed that a cumulative score of 3.14 was obtained from the responses to the statements pertaining to the memory strategy. Based on the findings of Oxford (1990), the aforementioned value was categorized within the medium frequency range, specifically ranging from 2.5 to 3.4. This value served as an indication that students at two universities sporadically utilized memory techniques in their pursuit of English language acquisition. The mean score for the participants’ responses to the inquiries encompassed within the cognitive strategy was found to be 3.35. As per Oxford's (1990), the aforementioned value was classified within the moderate frequency spectrum, specifically ranging from 2.5 to 3.4. This finding indicated that the respondents occasionally utilized cognitive techniques.

The mean score for the compensation strategy’s internal set of statement responses was 3.34. According to Oxford (1990), the observed scores fell within the intermediate range of 2.5 to 3.4, suggesting that the respondents employ compensation strategies on occasion. The results of the study revealed that the average score obtained for the responses to the assertions encompassed within the metacognitive technique was 3.86. Based on the research conducted by Oxford (1990), it was observed that the scores obtained by the respondents ranged from 3.5 to 4.4. These findings indicate that the utilization of metacognitive strategies was prevalent among the aforementioned learners.

Furthermore, the mean score for the responses to the inquiries within the affective approach was calculated to be 3.20. Based on Oxford (1990), the observed figure falls within the moderate range, spanning from 2.5 to 3.4, suggesting that the respondents sporadically utilize affective methods. Moreover, the mean score for the participants’ responses to the inquiries encompassed in the social strategy was calculated to be 3.16. As stated by Oxford's (1990), the figure was situated within the moderate spectrum, specifically ranging from 2.5 to 3.4. The data suggests that the respondents employ social techniques sporadically, as indicated by the number falling within the medium range. Thus, the highest score was on metacognitive strategy that means the most used strategy between respondents, and the lowest was on memory strategy that almost never applied by all respondents.

Factors Affecting the Strategy Used

Following the completion of the questionnaire-based data collection phase, the researcher proceeded to employ interviews. The purpose of this interview was to supplement the data regarding the various factors that impact the utilization of strategies. During the course of these interviews, three specific inquiries were examined.

Students' motivation to learn English

The students who employed memory techniques expressed strong confidence in their foundational understanding of the English subject matter and harbored aspirations of becoming
English educators. Then, the findings of the study indicate that students who employed cognitive and metacognitive strategies demonstrated a notable inclination towards comprehending English films without relying on subtitles. Subsequently, students who possess a keen interest in compensation strategies have demonstrated a persistent fascination with the English language from their formative years of education, with the intention of pursuing a profession in a field closely associated with English.

Furthermore, it was observed that students who employed affective strategies demonstrated a strong inclination towards pursuing careers as online lecturers or educators, in addition to utilizing the language for da'wah purposes in foreign nations. Finally, students who employed social strategies demonstrated a strong inclination towards pursuing a career in English education, particularly as a lecturer or instructor.

**Ways they use strategies when learning English**

The student with the memory method worked on recalling language through writing and mental images, as well as reviewing content from e-resources. Students with a cognitive strategy attempted to comprehend linguistic structures through films, books, and digital resources; skimmed reading; practised speaking; and evaluated learning. With a compensation strategy, students used a dictionary to look up synonyms and wrote them down, substituting complex word structures with statements that had the same meaning.

Furthermore, students who used the metacognitive strategy had clear goals for improving their skills, sought out opportunities to use English, practised speaking with a partner, maintained a focus when listening to English speakers, and read e-resources frequently to broaden their understanding. Students with affective strategies overcame uneasiness by cultivating courage, giving themselves self-reward, and believing that making mistakes was part of the learning process. Then, students in social strategy practised with their peers, helped one another, and corrected one another’s mistakes.

**Reasons for students' use of strategies.**

According to the beliefs of students employing memory strategies, the processes of remembering and writing were considered to be the most efficacious methods for acquiring a language and ensuring long-term retention of information. The participants who employed cognitive strategies indicated a high level of convenience with their usage. They expressed that they found enjoyment in their learning experiences through activities such as watching films and reading novels. The compensation strategy was perceived by students as being simpler in comparison to memorization. The student employing the metacognitive strategy expressed that the habitual practice of learning through active engagement and repetition had been established. The importance of maintaining a state of calmness while studying was recognized by a student who was engaged in the acquisition of affective strategies. Through engaging in collaborative efforts with their fellow students, individuals with social strategies are able to derive various advantages, including the acquisition of a more comprehensive and diverse outlook.

**Discussion**

The primary objective of the current research was twofold: firstly, to investigate the diverse learning strategies employed by students for English language acquisition through the utilization of electronic resources within blended learning environments, and secondly, to discern the influential factors guiding their selection of these strategies. In a bid to provide a more nuanced understanding of the determinants shaping students' learning strategies, the study delved into three specific aspects: (1) students' motivations for learning English, (2) the methodologies they employ when engaging with English language learning strategies, and (3) the underlying reasons driving their utilization of these strategies. The outcomes of the
investment yielded two principal findings. Primarily, the prevalence of metacognitive strategies emerged as a prominent trend among students hailing from the two participating universities. This observation aligns with prior research, wherein metacognitive strategies have been consistently identified as pivotal tools in the pursuit of English language proficiency (Lestari & Fatimah, 2019; Melvina et al., 2020; Rianto, 2020; Tanjung, 2018; Yulianti, 2018). The recurrent utilization of metacognitive strategies underscores their perceived efficacy in facilitating effective language learning, affirming their significance within the broader landscape of language acquisition strategies. This empirical contribution serves to augment the existing body of literature by substantiating the recurring prominence of metacognitive strategies in the context of English language education within blended learning environments.

Furthermore, the second highest score was on cognitive strategies which is in line with the results of the research by Kartikasari et al. (2015). The third position was compensation strategy. This finding was nearly consistent with the observation made by Wael et al. (2018) and Hapsari (2019) that students utilized affective strategies as the fourth most frequent approach. The fifth strategy was social strategy as in the study of Charoento (2016) that reported Thai university students learning English frequently employed social strategies as one of their primary strategies. Finally, memory strategies were the least employed strategy by the respondents which was relevant to the study conducted by Warahmah et al. (2017) revealed that students of English study program at FKIP Riau University predominantly employed memory strategies as their least preferred method of learning English.

Second, the first factor was motivation to learn English. The findings of this study indicated a positive correlation between the utilization of English language acquisition tactics and learning motivation among participants to persist in their pursuit of English language proficiency. Going deeper, there were two motivations utilized by the students, (1) instrumental/extrinsic motivation, that was the students who show a high tendency to use memory, compensation, affective and social strategies believe that taking this major will equip them to acquire language skills for practical purposes or with the aim of securing employment opportunities. Hou (2018) said that students with instrumental motivation showed a greater tendency to use compensatory strategies while relying less on metacognitive strategies. (2) integrative/intrinsic motivation, where some were compelled to achieve fluency in English to better understand and engage in English conversations independently, without relying on a mediator. Hou (2018) declared that students who exhibited motivation to integrate various facets of their learning displayed a higher utilization of cognitive strategies while demonstrating a decreased reliance on affective strategies.

Regarding learning styles, the refinement and augmentation of metacognitive and social learning orientations were facilitated through collaborative interactions with peers, particularly emphasizing the kinesthetic learning style. This collaborative engagement served as a mechanism to foster metacognitive processes and social learning dynamics, providing students with a multifaceted approach to their language learning endeavors (Hou, 2018). Conversely, students adopting a cognitive strategy demonstrated a proclivity for leveraging auditory and visual modalities to enhance their English language acquisition. Specifically, the act of watching English films emerged as a reported beneficial practice. This auditory-visual engagement was perceived as instrumental in reinforcing linguistic comprehension and proficiency, signifying the integrative role of auditory and visual modes in the cognitive learning strategies employed by students. The recognition of these nuanced preferences and practices underscores the importance of tailoring instructional approaches to accommodate diverse learning styles within the context of English language education.

Finally, about the students’ reason of employing different learning strategies were aligned with their individual interests or individual learning preference. The students who employed memory strategies exhibited greater ease in acquiring knowledge through e-resources.
Individuals who employed cognitive strategies exhibited a higher propensity to utilize English literature, film, and electronic resources as means of acquiring knowledge. Then, students who employed compensatory strategies yielded quicker results in comparison to the traditional method of memorization. Subsequently, students who employed metacognitive strategies reported doing so due to the prevailing practice of actively pursuing English learning opportunities and maintaining focus. The students who employed social strategies exhibited a pronounced inclination towards acquiring English language skills in the company of a peer or companion, as this facilitated the exchange and augmentation of their knowledge.

CONCLUSION

This study presents the learning strategies used by students to learn English using electronic resources in blended learning and the factors influencing students' choice of these strategies. The findings revealed that among six strategies (memory, cognitive, compensation strategy, metacognitive, affective, and social strategy), the most used strategy was metacognitive strategy with an average score of 3.86, and the least employed strategy was memory strategy with an average score of 3.14. Another critical finding revealed that students employed these strategies due to various factors: (1) students' motivation to learn English, including instrumental and integrative motivation; (2) their way of applying the learning strategies was related to their learning style; and (3) the reason they chose the strategy was aligned with their individual interests or individual learning preferences.

Lecturers and language instructors may need to reconsider how they teach in order to accommodate each student's preferred learning style. The findings suggest that English teachers can adapt their instructional methods to align with students' learning strategies, thus facilitating more effective knowledge acquisition. The use of various media and materials, as well as interactive teaching strategies, in blended learning is also highly recommended to engage students during the learning process and make learning more varied so as to facilitate the learning of students with different learning styles. It is worth mentioning that the generalizability of the findings of this study is limited as students were selected from two universities. Future research could involve more participants from different colleges. Future research could investigate how to teach students blended learning with different learning strategies and maximize students' learning outcomes with these strategies.

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