

Blended Learning: Indonesian EFL Learners Cognitive Pedagogical Strategy

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Abstract: This study aims to explore the implementation of proper language strategy in English learning within blended learning during the period of the COVID-19 pandemic. The research was conducted at Universitas PGRI Madiun in Jawa Timur, Indonesia. The location of the study is a non-major English class that is spread across two different faculties and departments that enable blended learning during the study. The subjects or participants of this study were the 70 students of primary education department and physical education and sports departments of Universitas PGRI Madiun. The method for analyzing the data included the data reduction and displaying, and drawing the conclusion. The authors discovered a theoretical and pedagogical gap from previous research. The research results show that students prepared and highly used cognitive strategies in learning English as described below: visual strategy (arranging Google meeting with lecturers and delivering material); verbal strategy (students ask questions to lecturers when students do not comprehend information); listening strategy (listening to lecturers' explanation in online class); writing strategy (participating in online pop quizzes); matrix strategy (having conversations with others). Moreover, students' respond towards their cognitive implementation within blended learning included step 1 (conveying the learning objectives that students want to achieve and motivating students to learn), step 2 (preparing the materials, inviting students to download the library materials), step 3 (explaining the materials and prepared materials), step 4 (forming students into groups), step 5 (guiding students to the presentation, inviting students to present discussion results); step 6 (confirming discussion results and presentation, giving a few questions to students associated with discussion and presentation and providing students with an opportunity to ask vague questions), and step 7 (evaluating groups and individual quizzes).

Keywords: cognitive pedagogical strategy, blended learning, EFL learners, COVID-19.

混合学习课堂中的印尼英语学习者认知教学策略

摘要: 本研究旨在探讨在新冠肺炎大流行期间在混合学习中实施适当的英语学习语言策略。该研究是在印度尼西亚爪哇帖木儿的 PGRI 马迪恩大学进行的。学习地点是一门非主修英语课程，分布在两个不同的院系，在学习期间实现混合学习。本研究的对象或参加者为马迪恩大学小学部和体育部的 70 名学生。分析数据的方法包括数据的缩减和显示，得出结论。作者从之前的研究中发现了理论和教学上的差距。研究结果表明，学生在学习英语时准备并高度使用认知策略如下所述：视觉策略（谷歌与讲师会面并提供材料）；口头策略（当学生不理解信息时，学生向讲师提问）；听力策略（在线课堂听讲师讲解）；写作策略（参加在线流行测验）；矩阵策略（与他人交谈）。此外，学生对混合学习中认知实施的反应包括步骤 1（传达学生想要达到的学习目标并激励学生学习），步骤 2（准备材料，邀请学生下载图书馆资料），步骤 3（解释材料和准备的材料），第四步（学生分组），第五步（引导学生演示，邀请学生展示讨论结果）；第 6 步（确认讨论结果和演示，向学生提出一些与讨论和演

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示相关的问题，并为学生提供提出模糊问题的机会) 和第7步(评估小组和个人测验。

关键词： 认知教学策略、混合学习、英语学习者、新冠肺炎。

1. Introduction

There has been an increase in demand for English around the world, so it is needed to study better on it. English is no longer only used for worldwide communication; it is also widely used for local communication. As a result, the focus has shifted from just imitating the original speaker's manner to effectively communicating in English. English's growing importance as an international communication and global lingua franca can be seen in practically every country around the world, from its rising prominence in educational curricula to its role as the language of international trade, tourism, and news transmission, among other things. The fast expansion of digital device technology, as well as the advent of new mobile device apps, has opened new options for EFL students [1]. In the case of Indonesia, the government's recognition of English's rising global relevance can be observed in the growing number of institutions—from kindergarten to university level—where English is the medium of communication. When it comes to the evolution of human awareness, English is recognized as the most important foreign language, having greater importance than any other foreign language taught in the country. English is the first foreign language taught to kids beginning in junior high school. It must be noted that certain websites devoted to teaching English are really valuable.

Language learning techniques are important variables in course development and teaching practice, as well as in classroom learning, according to [13]. Student activities on tasks that students undertake in college, such as memory, cognitive, compensation, metacognition, affective, and social, are observed and discussed with students. The English learning strategies they employ naturally differ based on the diverse features they possess. The study of English, particularly for non-English students, should be stimulated to accumulate language learning strategies such as memory pedagogy, cognitive pedagogy, social pedagogy, metacognitive pedagogy, affective pedagogy, and social pedagogy, which are critical for English learners to improve their English language skills.

Cognitive techniques in language education are becoming increasingly vital and critical to the success of English students in building both active and passive English proficiency and abilities. Cognitive methods are related to learners' cognitive abilities in digesting educational information. All of the activities of learners in the teaching-learning process that are related to the

utilization of learners' power are referred to as cognitive strategies. English students will be able to enhance their skills and understand English college information more easily if suitable English behavior and learning practices are implemented.

College education has changed dramatically in this era. This is characterized by a heavy reliance on technology to assist with college procedures. There aren't many lecturers who use digital media to distribute the academic curriculum. The growth of digital technology, multimedia, and social media in recent years has significantly altered our lives. Education in general, and foreign language teaching and learning in particular, have profited greatly from these discoveries and breakthroughs [22]. This is analogous to the efforts of already experienced students who use digital media to communicate with both academic and non-academic audiences. In conveying knowledge and information to the people, digital media may be used as a weapon of mass learning. However, because it is simple for careless people to access, digital media has several problems in delivering and arranging courses. In the twenty-first century, university teaching and learning have made use of blended learning mediums to help lecturers and students conduct lectures. The trends and developments in blended learning in higher education These findings illustrate some of the skills that are shared by digital educational technologies. A digital tool or platform, in particular, having human-to-machine interface capabilities that can enhance the automation process for interactive educational transformation.

The current studies about the language strategy of learning revealed that the students of the English department tend to use the metacognitive strategy (57.50%), followed by compensation strategy (46.30%), affective (45.00%), social (16.30%), cognitive (7.50%), and memory (6.30%). Metacognitive strategy was more in demand by students for planning, monitoring, and evaluation. In addition, student achievement realized the importance of using various language learning strategies. Female students used a more varied strategy than male students. However, students had priority strategies affective (30.8%). This showed that the students' emotional control was adequate, demonstrating motivation, and a strong attitude in learning English. Then followed by a metacognitive strategy (28.8%), compensation (13.5%), cognitive (5.8%), social (3.85%), and recall (1.9%). Additionally, male students used different types of strategies than

female students. Based on the research results, the students are expected to know learning strategies. They learned the language thoroughly, which should be applied continuously to achieve trust.

Non-English students were able to improve their thinking ability and easily process English college material by implementing appropriate English behavior and learning processes, namely, the cognitive strategy. The authors discovered a theoretical and pedagogical gap from previous research on language strategies employed by college students by using blended learning by non-English students in some faculties of Universitas PGRI Madiun.

2. Literature Review

Language learning strategies refer to the actions or planned behavior that language learners take to obtain, store, remember, retrieve, and apply new knowledge [12]. As indicated in [6], cognitive strategy is an inherent process called “control education”. Cognitive strategy is concerned with how to acquire, recall, and communicate information in a reflective and analytical manner [20]. Language learning strategies can be grouped into three kinds: cognitive, metacognitive, and socio-affective strategies [3]. Thus, cognitive strategies are an excellent technique to explain cognitive performance [11]. The fast rise in the usage of educational technologies, particularly web-based technologies and communications, has provided educators with a bunch of new chances to research the most appropriate learning settings for their students’ learning styles [5].

Studies on the use of language learning strategy for non-English department have been explored. The first research show differences and similarities in the use of strategies of language learning among students majoring in non-English and English department students. There is a significant difference in the use of six categories of strategies: (1) the tendencies in using learning strategies are different; (2) non-English department does not have enough awareness to use the strategy of their English language learning; (3) students of non-English department more often use the strategy of memory and social strategies, while the English department students often use a strategy compensation strategy and memory; (4) English department students more frequently use social strategies, while the non-English department speakers more often use the meta-cognitive strategy; (5) the study also showed a very far difference in the use of two strategies for language learning by the students of the two departments (meta-cognitive and social strategies). As for the equations in the use of learning strategies, language used between the English department and the department of non-English are:

(1) Both use four categories of language learning strategies in the medium frequency;

(2) They more often use the affective and cognitive strategies;

(3) The frequency of using meta-cognitive strategy is lowest;

(4) Both are not skilled in social strategy.

Cognitive strategy is all the behavior of learners in the process of teaching and learning associated with the use of the power of thought of the learners. Cognitive strategy includes four aspects of its constituents, namely: 1) Practice consisting of the repetition (repeating), formal training with voice (formally practicing with sound), recognizing and using the formula, merging (recombining) and practice in natural (Practicing Naturalistically). 2) Receiving and forwarding messages, which implies finding ideas faster, using resources for receiving a message. 3) Analyzing and understanding, which consists of deductive reasoning, analyzing expressions, analyzing contrastively, translating and transferring. 4) Creating the structure of the input and output, which includes (taking notes), summarizing and highlighting.

Various theories interested in the distinctive qualities of learners who have defined learning styles were studied in [2], and these traits were categorized into specific learner classes. English is one of the most commonly spoken language in the universe. It is a worldwide language in all fields of science, social studies, humanities, economics, and politics [10]. Educationists seek to provide a learning environment that ensures that all learners acquire information [18]. Many studies have shown that multimedia teaching may successfully improve students’ learning styles [21]. A student’s learning style was described as the manner in which he focuses, analyses, integrates, and recognizes challenging and unfamiliar academic material [8]. A learning style was also identified as a preferred method of learning, such as when a learner chooses art over writing, group learning over individual learning, or organized learning over unstructured learning [15]. Thus, the teacher can give learning facilities that enable the students to obtain information in the form of sound. For students with this learning style, the teacher can give the lesson in the form of experience and practice.

An innovative teaching method revealed nowadays is called blended learning. There is a need for established and unambiguous definitions, models, and conceptualizations to comprehend the practice and impacts of blended learning. Blended learning is an educational system method that enables several delivery modes to enhance learning outcomes and reduce program delivery costs in institutions. The term “blended learning” refers to any mix of face-to-face instruction with digital technology (online and physical actions). Blended learning requires us to analyze the properties of digital technologies in general and information and interaction technologies in particular.

In addition, students accessed learning resources such as video lectures from home, allowing in-class face-to-face time to be allocated for subject-specific group discussion and student-centered learning activities such as group activities. Students must have self-regulation abilities as well as technological competence since they must manage and carry out their studies independently of their teacher, at their own speed, and using online technology outside of their face-to-face meetings [4], [9], [16-17], [19]. According to [7], learning blended learning is a learning environment designed to unite the face-to-face learning (F2F) with online learning, which aims to improve the learning outcomes of students.

Studies on blended learning were reported by some authors, for example, [7] stated about blended learning. The researcher can conclude that the model of blended

learning is a mixture of learning combines face-to-face instruction led lecturer in conjunction with digital activity that led students to provide students with the educational pathways that are personalized.

3. Methodology

The research was conducted at Universitas PGRI Madiun in Jawa Timur, Indonesia. The location of the study is a non-major English class that is spread across two different faculties and departments that enable blended learning in the course of the study. The subjects/participants of this study were the students of Primary Education Department and Physical Education and Sports Department of Universitas PGRI Madiun. This can be figured out in Table 1.

Table 1 Participants of the study

Semester	Student Frequencies	Department	Faculty	University
6-7	30 People	Primary school education department	FKIP	Universitas PGRI Madiun
6-7	30 People	Physical education and sports department	FPIPSKR	Universitas PGRI Madiun

The study instrument was the tool used by the author in data retrieval techniques to examine the findings of research carried out in subsequent research phases. This study employed descriptive qualitative research methods with three instruments: observation, interview, and students' perspectives, as well as a questionnaire. The authors perform data analysis techniques by organizing data sequences into basic patterns, categories, and units of description. The data analysis technique that the authors undertook was by collecting the data according to research objects, which are: (1) implementation of blended learning through observation and interview; and (2) students' perceptions of learning through a questionnaire. The data is then analyzed in a descriptive way.

4. Results and Discussion

The educational literature has recently revealed cognitive language strategy within blended approaches to English learning may create an ideal setting for increasing student engagement and achievement. Language learning strategies are characterized as particular activities, behaviors, stages, or techniques—for example, seeking out conversation partners or encouraging oneself to undertake a tough language assignment. Moreover, Language Learning Strategy

was classified into memory, cognitive, and compensation strategies as direct strategies, whereas emotional, metacognitive, and social strategies as indirect strategies [12].

There are several definitions of blended learning, and it is usually characterized in higher education as a combination of conventional face-to-face instruction and online instruction teaching. The authors, on the other hand, have highlighted the difficulties of precisely describing learning that is blended. According to [7], blended learning is a type of learning environment that combines face-to-face (F2F) learning with online learning to improve the learning outcomes of students. As defined in [14], blended learning is more than just replacing classroom time; it also entails harnessing the internet to provide the best education possible. A large percentage of the classroom instruction in hybrid courses is completed online, and time spent in school is decreased but not removed. The following concept is based on study findings derived from observations made by the authors throughout college during the era of COVID-19 with blended learning. As a consequence of these observations, the authors discovered the following blended learning activities and cognitive techniques used by students and teachers throughout these two semesters:

Table 2 The implementation of cognitive strategy within blended learning

Activity	Implementation of blended learning according to students
Visual	<ol style="list-style-type: none"> 1. Understanding vocabulary. 2. Providing grammar and examples of vocabulary. 3. Playing YouTube videos about the present tense and passive voice material. 4. Learning how to pronounce what teachers have already said. 5. Arranging Google meetings with lecturers and delivering material and power point template. 6. Examining how lecturers provide answer keys for spelling and listening assignments. 7. Observing information provided by teachers over the Internet.

	8. Playing YouTube videos regarding the material of present tense, passive voice, simple past tense, pronouns, regular and irregular plural.
	9. Learning about the material using photos and movies.
Verbal	1. Inquiring students about simple present tense, simple past tense, the present continuous tense, the present perfect tense and pronouns.
	2. Asking lecturers questions while online studying.
	3. Responding to a teacher's inquiry.
	4. Inquiring when a teacher has given a job that is not clear, such as requesting a second explanation of an assignment.
	5. Answering lecturers' questions and providing active voice resources.
	6. Inquiring if the material offered has not yet been grasped.
	7. Stating the definition of the term posed by the lecturers.
	8. Spelling the word requested by the lecturer.
	9. When students do not comprehend a concept, they should ask the teacher.
	10. Asking questions to the lecturers when students do not comprehend information about regular and plural nouns
Listening	1. Listening to the material and then presenting it to a friend.
	2. Listening to information about the simple present tense.
	3. Quietly listening to the lecturer.
	4. Listening to a topic carefully.
	5. Applying material items in situations where they are not heard.
	6. Paying attention while teachers provide material.
	7. Watching a film discussing the subject in the current tense.
	8. When offered speaking materials, students engage in listening activities.
	9. Listening through a listening apparatus and altering what students heard.
	10. Paying attention to the teacher's words and writing them down.
	11. Listening to physical objects and explanations of material to be examined
	12. Listening to lecturers' explanation online.
	13. Listening to material while studying.
	14. Watching videos regarding pronouns in the simple present tense.
	15. Listening to audio learning material
	16. When students have listened, clarify what the lecturer has said.
Writing	1. Doing some online coursework and snap quizzes.
	2. Paying attention to what the lecturer says during explanations.
	3. Working online through some terminology.
	4. Expressing one's thoughts in a pre-existing discussion forum.
	5. Participating in online pop quizzes.
	6. Making a plain voice sentence.
	7. Writing the listening assignment.
	8. Making use of the past tense.
	9. Providing material spelling to students.
	10. Doing proper word study without using a dictionary to compose a short narrative in English.
	11. Performing online activities and creating videos, which are subsequently gathered.
	12. Writing down what you hear throughout the listening learning session.
	13. Making use of the past tense.
	14. Taking on direct and video online projects
Matrix	1. Having conversations with others.
	2. Correcting experimentation by students presenting the findings of the lecturer's study.
	3. Working on video projects in English.
	4. Making a film of a multigroup chat.
	5. Between groups, correcting classmates' replies.
	6. Spelling out numbers or rewriting those that have been provided.
	7. Integrating experiments by students.
	8. Compromising the simple present tense online.

During the observation, the authors observed some blended learning cognition among learners: visuals, verbal, listening, writing, and matrix. In visual cognition, students had Google meetings with academics and studied the information provided by lecturers in online learning. With the passage of time, students have adapted to the usage of online learning resources to get acclimated to and literate in those disciplines. Learning occurs in spurts and is tailored to

each individual's need. Because blended learning significantly improves the learning process online, the medium of learning is present and passionately reacted to. When the understanding of the present content is inadequate, the engaged student approaches the teacher about the material in the implementation. Data on verbal cognition may lead to the conclusion about class discussions or actively asking when learning might improve student social skills because it requires group

interaction. Students use blended learning by listening and writing what they hear. Because students attempt to grasp the spoken language linked with English use, the intensity of the interaction between students and teachers is extremely good. Therefore, students must actively listen to create a more favorable learning environment. In blended learning environment, students listen to material delivered by lecturers in theory, pedagogy, and practice. In this activity, students

are graded for engaging in activities other than instructional activities that cause them to lose concentration on the content delivered by competent lecturers, such as conversing during blended learning, listening to music, cooking, and attending other lectures. As a result, individuals lose interest in the chance to think critically about improving their creativity.

Table 3 Students' feedback about implementation of cognitive strategy within the English language learning through blended learning

No	Step	Category	Score Student's Response
1	Step 1: Conveying purpose of learning that students want to achieve and motivating the students.	Quite good activity	-
		Good activity	50%
		High activity	50%
2	Step 2: Preparing the material. Inviting the students to download material on the library	Quite good activity	10%
		Good activity	40%
		High activity	50%
3	Step 3: Explaining the prepared material	Quite good activity	-
		Good activity	20 %
		High activity	80%
4	Step 4: Organizing students into groups	Quite good activity	-
		Good activity	60%
		High activity	40%
5	Step 5: Guiding the students to the presentation. Inviting the students to present the discussion results	Quite good activity	10%
		Good activity	60%
		High activity	30%
6	Step 6: Confirming discussion results and presentation. Giving a few questions to the students associated with the discussion and presentation and providing the students with an opportunity to ask vague questions.	Quite good activity	-
		Good activity	70%
		High activity	30%
7	Step 7: Evaluating groups and individual quizzes. Encouraging students to draw conclusions from their assigned material and assigning students to do their own work on blended learning	Quite good activity	4.2%
		Good activity	47.2%
		High activity	48.6%
Total Average Score		Quite good activity	4.2%
		Good activity	47.2%
		High activity	48.6%

The analysis of student responses in the Table 2 shows that learning English through blended learning based on cognitive language pedagogical strategies is considered to increase students' credibility in learning. It can be seen that the high activity category (>75) gets the highest average score of 48.6%, which looks very significant in step 3 and step 7 in explaining the material and evaluating individual groups and quizzes. These activities include encouraging students to draw conclusions from the given materials and assign students to do independent work on blended learning. Then, the good activity category (61%-75%) got an average of 47.2% which looks very significant in step 6 by confirming the results of discussions and presentations, by giving some questions to students related to discussions and presentations and giving opportunities to students. students to ask unclear questions. And the lowest category is the quite good activity category (55%-60%) getting an average of 4.2%. Based on the results of the analysis, learning English through blended learning technique based on

cognitive pedagogical strategies is a strategy or steps that are considered effective in increasing students' understanding and interest in learning.

5. Conclusion

The authors have described the findings of their investigations and discussions, which will be summarized in the following exposures: The implementation of blended learning integrated with cognitive language pedagogical strategy in Indonesian EFL learners is a learning strategy that students can use in addition to others to attain the aim of learning. It is established that a cognitive language teaching technique is already used by 40 university students in Universitas PGRI Madiun. As a consequence, it was discovered that using engaging instructional materials helped students' attention stimulated, motivating them to learn a language. Through blended learning (visual, verbal, reading, writing, listening, and matrix) exercises, students can discover new techniques for enhancing their knowledge of language sciences.

Students are expected to actively participate in oral and written exercises. Students can be encouraged to study a language in this way by putting it into practice.

Analyzing the cognitive language and influence of the pedagogical strategy through blended learning activities in students, we can conclude that as many as eight strongly dominant students have high activation with 75% active influence in encouraging students to draw conclusions on material provided by proficiency teachers. Students were influenced and resurfaced in considerable language acquisition as a result of studying by employing cognitive techniques through blended learning. Students are also given the opportunity to gather crucial information points from various sources to develop information that can be used to think critically. As a result, students search for answers to problems on their own by implementing blended learning within a cognitive language pedagogical strategy.

Based on the research findings, the authors make numerous suggestions for the advantages of this study for future research interests. Research suggestions will be offered as follows: In this study, it is hoped that a negative viewpoint or stigma might modify a student's unfavorable attributes in blended learning study. This research is made a reference for decision-making in a teaching setting in a changing moment. Furthermore, learning through blended learning may be employed as a substance divider in a face-to-face education that is perceived as monotonous. After knowing the findings of this study, the authors should be able to profit from attempts to promote student learning through the right deployment of blended learning in delivering feedback to competent teachers. Teachers and institutions are practically mentioned in the approach. The use of blended learning in education can help sustain pedagogical notions and technological advancement. Facilitators are supposed to be able to create the skills contained in pedagogical notions to apply and use technology wisely.

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