Knowledge Construction Process in English Language Learning: Vygotsky's Social Constructivism Educational Psychology Perspective

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Abstract: *The aim of this research describe the process of constructing students' knowledge from social and physical interactions and daily experiences in learning English with a Vygotsky perspective in high school. The research method used in this research is qualitative research, with a descriptive type. This research is library research or literature study so it uses library data and interviews as data sources. Data was collected from books, articles, and journals that discussed the topics studied. In connection with the findings, the results show that the process of knowledge construction in English language learning in high schools from the perspective of Vygotsky's Social Constructivism educational psychology is through the Project-based Learning learning model. The Project Based Learning learning model pays more attention to students and other students in groups exchanging ideas to find ideas or express their new understanding of events that are learning material so that they will succeed in building a good understanding that suits their cognitive needs. English learning becomes more meaningful with the use of the Project Based Learning model starting from recognizing problems, creating project planning designs, compiling project implementation schedules, project implementation and monitoring, testing project results, as well as evaluation and reflection in the stages where there is no teacher domination where the teacher only as a facilitator in learning.*
Keywords: *science construction process, English language teaching, social constructivism, Vygotsky.*

INTRODUCTION

Education is a very important factor in the development of human resources. The success of an education system is reflected in the extent to which students can understand and apply knowledge in everyday life. To achieve good quality education, the teaching methods used by educators must always be updated and adapted to current developments. One method that is currently receiving a lot of attention is project-based learning (PBL). Nation (2018) describes project-based learning as a pedagogy that involves students in applying theory and skills to solve real-world problems. This method offers a more interactive and constructive approach, providing space for students to be creative, think critically, and solve problems in a project that is similar to real-world situations.

Project-Based Learning (PBL) is a pedagogical approach that emphasizes learning through experience. This method

allows students to actively engage in projects designed to provide an in-depth understanding of a particular concept or topic. Different from traditional methods which are more often passive and theoretical, PBL offers opportunities for students to explore, collaborate, and find solutions to realistic and contextual problems.

In the era of globalization and information technology, skills such as critical thinking, communication skills, collaboration, and creativity are becoming increasingly important. PBL naturally facilitates the development of these skills. Previous studies show a positive relationship between the PBL method and improvements in various cognitive and social-emotional aspects of students. These papers collectively provide insight into the research gap in exploring students' constructive processes in project-based learning. Koh (2010) found that project-based learning facilitated higher levels of knowledge construction during online discussions compared to non-project learning activities. Grant (2011) explored students' perspectives on project-based learning and identified internal and external influences, beliefs about projects, and tools for technology-rich environments as factors influencing project creation and student learning outcomes. Sukerti (2018) focuses on the use of discourse illustrations in project-based learning to help students construct essay outlines, leading to increased engagement, writing competence, and collaborative skills. Finally, Bradley-Levine (2022) highlights the general goal of project-based learning to engage students in exploring real-world issues and solving practical problems, with a particular emphasis on STEM subjects and technology. These findings collectively emphasize the importance of project-based learning in encouraging students' constructive processes and improving their learning outcomes.

Understanding students' constructive processes in the context of PBL will help educational stakeholders, including teachers, school administrators, and policymakers, to design and implement PBL more effectively. Poell (1998) explored project-based learning in professional organizations, highlighting its relationship to work and its potential benefits compared to traditional education and training methods. This research will focus on how students construct knowledge, design strategies, collaborate with peers, and develop critical thinking skills as they engage in projects.

Constructivist learning theory supports project-based learning. Relies on the idea that students construct their knowledge in the context of their own experiences. Vygotsky's constructivist view (according to Thobroni and Mustofa, 2011) has the understanding that children's learning takes place in social and physical interactions. Constructivist learning theory, especially in the concept of project-based learning, emphasizes the active role of students in learning through personal experience. Thus, project-based learning in constructivism theory is the result of collaboration between students and their environment.

METHODS

In conducting this research, the researcher used a descriptive qualitative research method, where this research will examine the experience of an individual or group to understand the meaning contained in that experience. This type of research is library research so it uses literature to facilitate research results, and in the research process, it uses interviews with the English subject teacher at high school, namely Mr. M. The topic of the interview will center on his experience in teaching using project-based learning methods. The results of the

interviews will be collected and conclusions drawn descriptively.

RESULTS AND DISCUSSIONS

Based on the results and analysis of the literature study and interviews conducted, the following conclusions were obtained:
1. Constructivity Theory and its relationship to project-based learning
a. Konstruktivisme Lev Vygotsky

Baharuddin and Wahyudi (2015) stated that constructivism describes learning as a process in which humans build or create knowledge by trying to give meaning to what they know according to experience. Constructivism theory emphasizes developmental psychology from a sociocultural perspective. Vygotsky, a psychologist who was interested in language, could understand the thought process because language is related to the human thought process. According to Saputro and Pakpahan (2021), Vygotsky is someone who put forward social constructivism which does not differentiate individuals from their background and social roles. Vygotsky's social constructivism believes that the learning process carried out by students will experience a process of enculturation (fusion of understanding based on culture) involving their environment and appropriate knowledge. Siegler & Alibali (in Saputro and Pakpahan, 2021) say that the theory of social constructivism according to Vygotsky in its role is never separated from language as a tool, where language is one of the psychological tools used by humans because language plays an important role in all forms of social interaction.
b. PBL in Vygotsky's Constructivism Perspective

Constructivism theory in learning focuses on the concept that students actively build their understanding through their reflection and thinking processes related to experience, reflection, and interaction with lesson material. This theory argues that each individual has a unique frame of mind and also argues that learning occurs when students try and succeed in linking the new information they obtain with pre-existing knowledge. Vygotsky's constructivism theory offers several strong reasons for application in education. First, Vygotsky emphasized the importance of social interaction in learning. By focusing on collaboration between students, this theory allows for the exchange of ideas and the development of deeper understanding. According to Jonassen (in Lesmana and Jaedun, 2016), PBL uses a constructivist approach to instruction, with a special focus on the real world. PBL orientation is more directed towards inquiry-based learning opportunities, namely structured experiences based on the belief that learning occurs when individuals are asked to investigate a problem.

Project-based learning, on the other hand, requires students to engage in real or simulated projects that involve several processes such as problem-solving, teamwork, and application of knowledge in practical contexts. According to Kamaliyah and Alrianingrum (2022), this method allows students to be actively involved in the learning process, which is in line with the principles of constructivism theory. Project Based Learning applies important implications of Vygotsky's constructivism theory, namely classroom management by emphasizing social interaction in the learning environment.

The relationship between constructivism theory and project-based learning is very close. Project-based learning allows students to build their knowledge in a very constructive way. Students not only receive information, but they must also apply, analyze, synthesize, and evaluate that

information in the context of the project they are working on.

Through these projects, students learn from hands-on experiences, face real challenges, and actively engage in the problem-solving process. They build their understanding through exploration, reflection, and collaboration with their peers. Thus, project-based learning enables the application of constructivist concepts in practical contexts allowing students to become more independent and critical learners. This can be seen in data from previous research which is relevant with the title "The Influence of the Project Based Learning Model on Students' Level of Understanding in History Learning for class history class X IPS SMA Negeri 20 Surabaya was 40.3 percent.

2. Students' constructive process in project-based learning in Senior High Schools

The interview was conducted with an English teacher from one of the high schools in the Karanganyar area, namely Mr. M. Based on the results of the interview that was conducted, several points can be explained as follows.

1. The Main Role of Teachers in Helping Students Learn English

The teacher's role in helping students learn English has a very important role in developing students' communication skills. First of all, the teacher functions as a learning facilitator who not only conveys information but also guides students through the process of understanding and mastering English language skills. Teachers play a key role in designing learning experiences that motivate and invite students to be actively involved in learning. This is in line with the statement from Arianti (2018) who said that the teacher's role in the teaching and learning process includes many things such as teacher, class manager, supervisor, motivator, consular, explorer, etc.

Furthermore, teachers are responsible for creating a learning environment that supports exploration, creativity, and interaction in English. By creating an inclusive and positive atmosphere, teachers give students the courage to try, make mistakes, and learn from their experiences. This creates space for students to express themselves in English without fear of being judged, building confidence in English communication. Silalahi, Purba, and Benarita (2022) also stated that motivation and space for expression an important aspects and means to build their confidence in learning and using English.

Lastly, the teacher also acts as a model who provides examples of how to use English appropriately and effectively. Through classroom interactions, teachers can show the beauty and usefulness of English in real contexts. Teachers can also provide constructive feedback and guide students in improving their language skills. Thus, the teacher's role not only includes delivering lesson material, but also involving students to shape their mindset towards English, creating a positive learning climate, and providing inspiration for continuous progress. Prijanto and Kock (2021) state that one of the factors that can influence student activity is the way teachers apply learning methods to increase student interaction so that they are motivated to be involved during the learning process.

2. Use of Games or Fun Activities in Teaching English

The use of games or exciting activities in the context of teaching English can have a significant positive impact on student motivation. First of all, fun games and activities can create a fun learning environment. When students enjoy the learning process, they tend to be more motivated to actively participate and engage in learning activities. Word games, for example, are not only an effective learning

tool for expanding vocabulary but also provide an element of challenge and competition that stimulates enthusiasm for learning. With their experience in learning using games, it will have a positive impact on students. Suryoharjuno (2011) stated that games such as ice breakers will make situations that were initially boring, sleepy, and tense turn into relaxed and enthusiastic so that the results of these activities will have a positive impact on learning activities and it is hoped that this will have an impact on the development of student's knowledge.

Furthermore, games or simulation activities play a role in enriching students' learning experiences. By embracing variations such as role-playing or simulating real situations, students can relate English language learning to everyday life contexts. This not only makes learning more relevant but also helps students develop practical language skills. Through these activities, students can engage in communicative situations that are similar to the use of English in the real world. Cohen and Wong (2020) stated that teachers who teach in an environment that supports simulations will stimulate students' sensitivity in problem-solving and enrich the students' own experiences.

In addition, the use of games and exciting activities can stimulate students' creativity. In role-playing activities or simulations, students can unleash their imagination and create unique narratives. This method not only improves language skills but also enriches students' expressions in English. By utilizing elements of creativity, English language teaching becomes more dynamic and encourages students to see learning as a fun challenge.

Overall, the use of fun games and activities not only injects an element of fun into English learning but also creates a solid foundation for student motivation. By designing interesting and interactive activities, teachers can increase student engagement, motivate them to learn English with great enthusiasm and make the learning process more meaningful for their development.

3. Building Knowledge through Project Learning in Class

Project learning in the classroom opens the door to deeper and more sustainable learning experiences. First, projects allow students to be actively involved in solving problems, encouraging them to apply English concepts contextually. By analyzing and solving problems in projects, students not only hone their language skills but also develop the critical and problem-solving abilities necessary in everyday life. According to OS Tan (2021), in his research, he stated that facilitating students to experience real problems that can occur in the real world will increase their intelligence regarding topics that are problematic in these problems, as well as instill a better and more meaningful understanding.

Second, project learning involves students in making direct connections between subject matter and the context of everyday life. By designing projects that are relevant to real-world situations, teachers provide students with opportunities to apply and understand English concepts in practical situations. For example, projects that involve creating advertisements or presentations can allow students to use their English creatively to convey ideas or information to others.

Third, through collaborative projects, students not only build communication skills but also learn to work together as a team. The collaborative process enables the exchange of ideas and views, develops students' social skills, and prepares them to work in environments that require cooperation. Thus, project learning is not only about mastering English but also about developing interpersonal skills necessary for success in various life contexts.

4. Encourage Collaboration in the English Class

Encouraging collaboration in the English classroom is a strategy that not only enriches students' learning experiences but also prepares them to interact in an increasingly globalized society. First, by arranging project assignments that require collaboration, students are invited to work together actively. These projects create opportunities for students to share their knowledge, perspectives, and skills with their group members, thereby expanding the collective understanding of the English language. Frank W. Geels (2020) stated that Social Constructionism will encourage humans to collaborate and then, from this relationship, inter-community and global interaction experiences will be born.

Furthermore, working together on project assignments can improve students' social skills. Collaboration builds communication, negotiation, and problem-solving skills in a team context. Students learn to value each other's role in the group, respect classmates' opinions, and work toward common goals. This not only forms the social skills needed in society but also creates an inclusive and supportive classroom climate.

Encouraging students to work together also opens up opportunities for them to learn from each other. In a cooperative learning framework, students can provide support and guidance to each other. For example, students who are more proficient in an aspect of English can help classmates who may be having difficulty. This creates a mutually beneficial learning dynamic and builds a sense of community in the classroom.

Lastly, through collaboration, students not only develop academic skills but also understand the importance of teamwork in achieving common goals. This creates a foundation for the development of collaboration skills that can help students succeed in the world of work and their daily lives. Thus, encouraging collaboration in the English classroom is not just about language learning, but also shaping character and social skills that are important for students' futures.

5. Helping Students Overcome Difficulties in Projects

Helping students overcome difficulties in projects is an important aspect of a teacher's role in supporting students' academic development and life skills. First, when students encounter difficulties, a teacher's quick and supportive response can provide a sense of support and confidence to students. Providing guidance individually or in small groups allows teachers to better understand the barriers students face and adjust learning approaches to better suit their needs.

Furthermore, guiding questions asked by the teacher can trigger students' critical thinking. Engaging students in reflective conversations about the challenges they face not only helps them understand problems more deeply but also stimulates creative and strategic thinking. Teachers can ask questions that encourage students to formulate their solutions, building independence and problem-solving skills that are useful in the future.

Providing additional resources is also an effective step in helping students overcome difficulties. Teachers can provide additional references, reading materials, or online resources that support students' understanding of the material. This not only enriches students' learning experience but also gives them the tools to overcome difficulties with a more holistic approach.

Lastly, this approach encourages students to develop problem-solving skills and independence. By providing support that allows students to actively seek solutions, teachers help foster an attitude of courage and confidence in facing challenges. This

process is not just about solving the problem at hand but also about empowering students with skills that can be applied in various contexts of their lives. Thus, helping students overcome difficulties in projects not only overcomes concrete obstacles but also forms an important foundation for the development of students' skills and positive attitudes.

6. Effective Projects in Supporting Science Construction

Projects involving investigation, presentation, and direct application of English in real-life contexts can be highly effective tools to support science construction. First, inquiry is a key element in this project, allowing students to explore English concepts and apply them in real situations. By conducting research, students not only improve their understanding of the English language but also develop analysis and synthesis skills. Mattriano and Agullana (2020) stated that project-based learning will stimulate students to explore and analyze concepts in more depth based on their inner motivation, to then apply these concepts in the real world which will have an impact on the level of students' abilities in problem analysis and student performance. Alone.

Second, presentation is an important stage in an effective project. Through presentations, students learn to convey their information and ideas clearly and convincingly using English. This process not only improves their speaking skills but also teaches them how to structure and present arguments logically and effectively.

Direct application of English in real-life contexts is the third key element in an effective project. For example, creating commercials, interviews, or solving problems in the neighborhood can give students real-world experience using English outside the classroom. This method will open up opportunities to relate understanding of English to everyday life,

enrich practical applications, and build bridges between classroom learning and the real world.

Lastly, such projects can stimulate student interest and motivation. By engaging them in relevant and meaningful activities, students can feel the direct impact of their learning. This can increase their curiosity about English and motivate them to be more active in learning. Thus, projects that combine investigation, presentation, and direct application of English in real-life contexts can be considered an effective strategy for supporting students' knowledge construction.

7. The Role of Social Interaction in Learning

Social interaction between students plays an important role in the learning process. First, through discussion, students can develop their understanding of the learning material. By sharing thoughts, views, and interpretations, students have the opportunity to hear different perspectives, broaden their horizons, and deepen their understanding of English concepts. Discussions also stimulate critical thinking, as students must formulate and defend their arguments, creating a dynamic and proactive environment.

Second, collaboration in social interactions allows students to work together to achieve learning goals. Through joint projects or group assignments, students can complement each other's skills, contribute to problem-solving, and learn from each other. This not only builds teamwork skills but also creates an inclusive and supportive learning atmosphere, where every student feels valued and valued. Ninger Zhou et al (2020) also stated that social interactions that occur during learning will increase students' opportunities to collaborate more deeply to achieve learning goals and a better learning atmosphere.

Lastly, social interactions between students provide emotional and motivational support. Students can provide support to each other when facing difficulties or challenges in learning English. Positive social relationships can also increase motivation, inspiring students to study with high enthusiasm. With healthy social interactions, students not only gain a better understanding of English but also develop social and emotional skills that are essential for success inside and outside the school environment. Thus, the role of social interaction in learning not only enriches students' experiences but also forms a solid foundation for their personal and academic development.

8. Use of Stories or Examples in Teaching English

The use of stories or examples in teaching English is an effective strategy for increasing students' understanding of the context of language use in everyday life. First, stories or examples provide real situations in which English is used. This helps students to see how language concepts are applied in various contexts, providing a deeper understanding of the meaning and use of certain words or phrases. By detailing everyday life situations, students can more easily relate the subject matter to their personal experiences.

Second, the use of stories or examples makes learning material more relevant for students. By presenting examples related to their lives, students can see the importance of English in everyday situations and feel a direct connection between classroom learning and life outside the classroom. This helps overcome abstract understanding and gives students a concrete idea of how they can apply English in practical situations.

Third, stories or examples make learning material easier to digest. By conveying information in the form of narratives or illustrations, teachers create a more interesting learning environment and make it easier for students to understand English concepts. Students' imaginations are engaged, allowing them to form strong mental images of the use of English in specific contexts.

Lastly, the use of stories or examples can arouse students' interest in learning English. By presenting material interestingly and entertainingly, students are more likely to be actively involved in learning. This creates a positive environment in the classroom, where students feel enthusiastic and motivated to learn more about English. Thus, the use of stories or examples not only helps students understand the material but also creates a dynamic and relevant learning experience.

9. Use of Computers or the Internet in Teaching English

The use of computers or the Internet in teaching English is an innovation that has a positive impact on the learning process. First, the use of technology increases students' access to a variety of resources. With internet access, students can access additional learning materials, online dictionaries, and interactive English learning platforms. This allows them to explore a wider and deeper range of content, which may not be accessible conventionally.

Furthermore, technology supports independent learning. Through applications or online learning platforms, students can learn English independently at their own pace. Technology allows students to organize their study schedules, select materials that suit their needs, and engage in engaging learning activities. This stimulates students' sense of responsibility and independence in managing their learning.

The use of technology also creates a dynamic learning environment. Teachers can take advantage of interactive software or applications to make teaching more interesting and relevant for students. For

example, the use of online learning platforms with gamification elements or learning videos can increase student engagement. A dynamic and interesting learning environment can provide a more positive learning experience and help students stay focused and enthusiastic in learning English.

Lastly, the use of technology prepares students for the challenges of the digital world. Skills in using computers and the internet are becoming increasingly important in today's information era. Through technology-integrated English teaching, students not only develop language skills but also technology skills that can help them succeed in various areas of life.

Overall, the use of computers or the internet in English language teaching can be an effective tool for increasing access, supporting independent learning, creating a dynamic learning environment, and preparing students for the ever-evolving digital world.

CONCLUSION

Teachers have a very important role in English language learning, emphasizing their function as facilitators, motivators, and models for students. Teachers not only convey information but also create an inclusive environment that supports students' exploration and creativity in English. In addition, the use of games, fun activities, and project learning are effective strategies for increasing student motivation, linking learning to the context of everyday life, and developing social skills and teamwork.

This interactive approach is enhanced by the application of technology, with the use of computers and the internet providing wider access to resources, supporting independent learning, and

creating a dynamic learning environment. Furthermore, social interaction between students is proven to play an important role in deepening understanding, collaboration, and providing emotional support, while the use of stories or examples helps students relate English to everyday life contexts. Overall, this holistic approach not only helps students understand English in-depth but also prepares them for the challenges of the ever-evolving digital world.

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