



## **Survey on The Use of Project Based Learning Model in Teaching Speaking at SMPN 2 Ayamaru**

**Sophia Binnendyk<sup>1</sup>**

Corresponding E-mail: [felicialeca@yahoo.com](mailto:felicialeca@yahoo.com)

*English Education Study Program, Pattimura University, Indonesia*

**Salmon J Hukom<sup>2</sup>**

*English Education Study Program, Pattimura University, Indonesia*

**Hanafi Bilmona<sup>3</sup>**

*English Education Study Program, Pattimura University, Indonesia*

**Christian Albert Lewier<sup>4</sup>**

*English Education Study Program, Pattimura University, Indonesia*

### **Abstract**

Project Based Learning (PBL) has implemented as a teaching model in English class. This study aims to explore teacher's and students' perception on the use of PBL in speaking class. The study used descriptive qualitative research. It was carried out at SMPN 2 Ayamaru, and the sample of the study is an English teacher and three students. In collecting the data, the researchers used interview. There were six questions for teacher and five questions for students. The results show that both teacher and students had positive impression about the use of PBL in speaking class. The teacher used PBL because its characteristics were appropriate with speaking as tool of communication. PBL can help students in improving their speaking ability, besides PBL also promotes team and collaborative work among students. In doing a project, the students can give feedback toward language barriers when their mates did mistakes. The teacher also can provide feedback. Lastly, the students feel more confident in presenting the project because in PBL, the students did more practice in groups.

**Keywords:** *Project Based Learning, Teaching Speaking, Survey, SMPN 2 Ayamaru*

**DOI:** [10.30598/matail.v5i1.16555](https://doi.org/10.30598/matail.v5i1.16555)

### **INTRODUCTION**

In recent years, the importance of developing students' speaking skills has become increasingly recognized in the context of English language teaching, especially in countries like Indonesia, where English proficiency is seen as a key skill for academic success and future employment opportunities. However, despite the growing emphasis on speaking skills in Indonesia's national curriculum, many students still struggle to communicate effectively in English. Traditional teaching methods, which often rely heavily on rote memorization and teacher-centered instruction, have been criticized for not providing students with enough

opportunities to engage in meaningful communication or to practice speaking in authentic contexts.

Successful teaching and learning activities can be achieved if it is supported with the appropriate teaching strategy, teaching model, and teaching method. Speaking about the teaching and learning model, John Hattie (2021) states that a good teaching model must prioritize learner-centeredness, where students' individual needs, interests, and prior knowledge are considered. Hattie highlights that an effective teaching model should use evidence-based strategies that foster student ownership of their learning. Furthermore, Terry Doyle (2020) argues that effective teaching models must incorporate active learning and collaborative learning environments. Students should not be passive recipients of knowledge but should engage in meaningful activities that foster collaboration and critical thinking.

Project-Based Learning (PBL) has become increasingly popular in educational practices, especially as schools seek to foster deeper, more engaging learning experiences. The approach centers around students working on a project over an extended period, typically requiring them to solve real-world problems or answer complex questions. John Hattie (2021) argues that active learning methodologies, such as Project-Based Learning, have a profound impact on student achievement. Hattie highlights that PBL supports deep learning by encouraging students to engage in higher-order thinking, problem-solving, and application of knowledge, all of which are necessary for deep understanding. In line with Hattie, Chard (2001), an expert in early childhood education, PBL is an effective way to develop the so-called 21st-century skills, such as critical thinking, communication, collaboration, and creativity. PBL mirrors real-world challenges, requiring students to work together, manage projects, and think critically, skills highly valued in modern workplaces. It also allows for interdisciplinary learning, which reflects the complexity of real-life problems.

In English teaching practices, Project-Based Learning (PBL) has been increasingly recognized as an effective teaching model in language education, particularly for enhancing speaking skills in English. In the context of English language learning, PBL allows students to engage in authentic, real-world tasks where they actively use language to solve problems. Richards (2015) argues that PBL provides a context for learners to engage in real-life communication, which is essential for improving speaking skills. By working on projects, students are encouraged to use English in authentic contexts where communication is necessary for task completion. This kind of exposure enhances fluency and helps learners develop the skills needed to interact effectively in both formal and informal contexts.

In teaching English in Indonesia, PBL also has been used for many years. English teachers mostly like to implement PBL as a teaching model and found some benefits. The researchers interviewed Mrs. M, an English teacher at SMP Negeri 2 Ayamaru. She said that she prefers implementing PBL especially in teaching speaking because the students can communicate in real context, they are engaging to participate in the project actively, and PBL encourages the students to use the target language properly.

There are many researchers who conducted studies about the use of PBL in teaching speaking. First, Aini and Zubaidah (2023) investigated the effectiveness of Project-Based Learning (PBL) in improving the speaking skills of Indonesian EFL (English as a Foreign Language) students. The researchers focused on high school students in a rural area of Central Java, Indonesia. The study compared two groups: a control group that followed traditional

teaching methods and an experimental group that used PBL. The study concluded that PBL is a highly effective approach to teaching English speaking skills in Indonesia, as it not only improves language proficiency but also encourages students to actively engage in real-world communicative tasks. Second, Al-Mahrooqi et al (2022) explored the use of Project-Based Learning (PBL) in Saudi Arabian English as a Foreign Language (EFL) classrooms, focusing on its impact on improving students' speaking skills. The researchers implemented PBL in a university setting, involving non-English major students enrolled in a general English course. Students worked on projects related to cultural exchange, social issues, and problem-solving, where they had to collaborate and present their findings in English. It was found that PBL significantly enhances speaking skills in the EFL context, particularly when students are given the freedom to work on projects that are meaningful and require real communication.

This study is significant because it provides the current data from PBL used in teaching speaking at junior high school through interviewing an English teacher who has implemented PBL in teaching speaking and her students.

## **LITERATURE REVIEW**

### **The Essence of Speaking**

The essence of speaking in language learning involves the ability to effectively use oral language to communicate thoughts, ideas, and emotions in a clear, coherent, and contextually appropriate manner. Speaking is considered one of the most crucial skills in second language acquisition, as it requires the simultaneous use of various linguistic components such as vocabulary, grammar, pronunciation, fluency, and pragmatics.

Krashen (1985) views speaking as a crucial skill for language development. In his Input Hypothesis, Krashen suggests that while input (listening and reading) plays an essential role in language learning, output (speaking and writing) is equally important. For Krashen, speaking not only helps learners practice what they have learned but also provides an opportunity to internalize language structures by using them in communication. So, Krashen argues that through speaking practice, learners move from passive comprehension (receiving language) to active production (producing language), thereby reinforcing and solidifying their language skills. Speaking acts as a feedback loop that aids in the assimilation of language and provides learners with the opportunity to test their understanding in real-time, leading to more natural language acquisition.

Therefore, Schmitt (2008) also states that speaking is a complex cognitive task that requires learners to process various components of language simultaneously. This includes vocabulary retrieval, grammar formation, phonological processing, and speech planning. Schmitt suggests that effective speaking involves the integration of both automatic and controlled processes. It means that learners must not only have a good mental lexicon (vocabulary) but also the cognitive ability to organize thoughts rapidly and produce coherent speech. The complexity of speaking lies in managing these cognitive demands while also responding in real time to the interaction. Hence, speaking involves both linguistic knowledge and cognitive control, requiring learners to think on their feet and adapt quickly.

## Teaching Speaking

According to Mora (2010), Teaching speaking allows students to interact with others in any setting, influence others, and convey their feelings and communication needs. For this reason, having a thorough understanding of the speech process is essential for teaching speaking skills. Conversely, speaking refers to using words in a natural voice.

Teaching speaking, then, is providing guidance to an individual so they may communicate. Effective communication is the aim of speaking skills instruction. Learners ought to be able to communicate clearly while making the most of their current level of competence. They should make an effort to avoid miscommunication caused by improper terminology, grammar, or pronunciation, and they should abide by the social and cultural norms that are relevant to each communication.

## Project-Based Learning Model

Project-Based Learning (PBL) is an instructional methodology that emphasizes active learning through the completion of projects. In this approach, students engage in hands-on, real-world tasks that require critical thinking, collaboration, and problem-solving. Several educational theories underpin PBL, drawing from cognitive science, constructivism, and experiential learning.

Constructivist theory emphasizes that learning is an active process where students build on their prior knowledge to construct new understanding. Learning is seen as a process of constructing and refining mental models through experience. PBL aligns well with constructivism because it allows students to build knowledge through authentic, real-world projects.

- **Piaget's Contribution:** Piaget argued that cognitive development occurs through stages, and students actively construct knowledge by interacting with their environment. PBL provides opportunities for hands-on learning that supports cognitive growth.
- **Vygotsky's Contribution:** Vygotsky's Social Constructivism emphasizes the social context of learning. He proposed the Zone of Proximal Development (ZPD), where learners are most likely to achieve growth through guided interaction with more knowledgeable peers or adults. PBL encourages collaborative learning, which enhances this ZPD concept.

## The Procedure of Implementing PBL in Teaching Speaking

Stoller (2006) revealed that there are eight steps in implementing Project-Based Learning. The steps include:

1. Choosing Project Topic, the teacher should choose a topic initially and the students are supposed to understand the learning objective and topic at this stage.
2. Pre-communication activities, the teacher introduces new vocabulary and language elements that students will need to complete the project in pre-

communicative exercises. This stages help students finish projects and communicate in the target

3. Asking essential questions, the teacher prepares essential questions before learning. It helps students understand the project's topic, type, and investigation. Then, students must answer the teacher's essential questions in a project.
4. Designing a project plan, in this step the teacher helps students create a rational, logical, and achievable project plan. Project selection, problem solving, and inquiry planning help students develop critical thinking skills.
5. Creating a project timeline, at this stage students are assisted by the teacher to create a timeline schedule of activities while completing their project.
6. Finishing and monitoring the project, Students create a project, starting from the investigation process to completing the project, then the teacher's role is to monitor student progress.
7. Assessing the project results, this activity ensures group members take responsibility for their project and know the extent of their understanding.
8. Evaluating the project. The teacher evaluates the project by providing feedback, and students reflect on their learning. This step encourages students to discuss project challenges and assess their project-completion skills

## **METHOD**

This study used a descriptive qualitative research to find information about the use of Project-Based Learning Model in teaching speaking. The research was carried out at SMP Negeri 2 Ayamaru, Maybrat District, Southwest Papua. The participants of this study were 3 students of class VIII and one English teacher. The researchers collected the data through interviews.

## **RESULT AND DISCUSSION**

### **The Results of the Teacher's Interview**

The interview was done to the teacher because she was the key in implemementing PBL in her teaching of speaking. The researchers asked six questions to the teacher and the questions are about the implementation of PBL in speaking class and its impact to students' speaking ability.

The first question is about the reason why the teacher chose PBL as a teaching model in her speaking class. The teacher said that

“Because this teaching model is appropriate with speaking skills where the students do the project and present in front of the class. Besides, the students are involved actively in their group discussion although it was so simple”.

In response to this question, the reason in choosing PBL is not based on certain recommendation from the official of educational office, but it is based on the characteristic of speaking class, it is oral communication and interaction and PBL model can be used to accomodate this need.

The second question is about whether the teacher agrees or not that PBL can improve students' ability to provide opinions or ideas during speaking activities. The teacher said that "I agree that project-based learning (PBL) is great for training students to be more confident in expressing their opinions or ideas when speaking. Working on a project in groups; they must discuss, exchange ideas, and express opinions to complete the project. This trains them to actively speak and listen to others' opinions." Presenting the project results; presenting the project in front of the class is an opportunity for students to practice public speaking skills. They must explain their ideas clearly and convincingly".

Project-based learning (PBL) offers an excellent platform for students to develop both their communication and collaboration skills. When working in groups, students are often required to articulate their thoughts, listen to others, and engage in discussions to reach common goals. This not only boosts their confidence in expressing opinions but also encourages active listening and critical thinking.

The third question asks about PJBL is effective in fostering collaboration and teamwork among students during speaking assignments. The teacher said that

"In my opinion, project-based learning (PBL) is very effective in improving collaboration and teamwork among students when working on speaking tasks. Better communication; to complete the project together, they must communicate effectively in expressing ideas, listening to opinions, and finding solutions together. More motivated; because projects are usually interesting and relevant to everyday life, students will be more enthusiastic about learning and collaborating."

The teacher agreed that PBL can promote teamwork and complete the project collaboratively. Topics related to daily activities will be easy and encourage students to speak in giving ideas.

When the researchers asked the teacher about PBL can help the students to overcome language barriers, and the teacher said that

"Hands-on practice; students directly apply the language they have learned in real project tasks and in relevant situations." Focus on communication rather than perfect grammar. They are encouraged to speak clearly, even if there are still mistakes in language use."

In other words, PBL is effective because it emphasizes practical language use over perfection, which mirrors how language is used in real-life situations. Focusing on communication allows students to gain confidence and fluency, encouraging them to use the language actively rather than being paralyzed by fear of making mistakes. Mistakes are a natural part of learning, and as long as students can convey their ideas clearly, it fosters a more supportive and less stressful learning environment.

The next question is about PBL prepares students for real-world communications scenarios, the teacher said that

"Yes, project-based learning (PJBL) really helps them prepare to face real-world communication situations because it allows for hands-on practice, role sharing, problem-solving, and presenting. Therefore, PJBL is a very effective learning method to prepare them for the real world and develop communication skills for success in life."

This comment highlights the key strengths of project-based learning (PBL), especially its focus on real-world applications. By emphasizing hands-on practice, role sharing, and problem-solving, PBL stimulates authentic situations where students must use their language and communication skills actively. This not only builds confidence in their ability to communicate effectively but also encourages critical thinking, collaboration, and adaptability—skills essential for success in both professional and personal life. Overall, PBL is an excellent approach to preparing students for the demands of the real world while making the learning process more engaging and practical.

The last question is about PBL can increase students' confidence in speaking, and the teacher said that

“Yes, I agree that PBL can make students more confident in speaking. Why? When working on project tasks, students have to frequently discuss with their peers, present their work, and explain their ideas. Through these activities, they become more accustomed to speaking in front of others/their classmates and become more confident.”

This comment effectively captures one of the core benefits of project-based learning (PJBL) in building students' speaking confidence. By engaging in discussions, presentations, and explaining ideas, students not only practice using the language in real contexts, but they also develop important public speaking and interpersonal communication skills. The more they participate in these activities, the more comfortable they become with speaking in front of others, reducing anxiety and building self-assurance. The collaborative nature of PJBL also helps students feel supported by their peers, which can further encourage them to speak up and share their ideas.

### **The Results of Students' Interview**

To support the data from the teacher, three students were selected as samples to be interviewed. The researchers asked five questions to the students.

First question is about PBL affects students' confidence in speaking English, and all students had similar answers, they said that

“ In project-based learning, we use English directly to complete tasks while practicing hands-on. The more we practice, the more confident we become in speaking English. b. Every time we successfully explain a project task, our confidence increases. We feel like, "Wow, I can speak in English”.

This comment illustrates the direct connection between practice and increased confidence in language learning through project-based learning (PBL). The idea that "the more we practice, the more confident we become in speaking English" emphasizes the importance of repeated, active use of the language in real-world tasks. As students engage in project work and successfully explain their ideas, they experience a sense of accomplishment, which boosts their self-esteem and reinforces their belief in their ability to communicate in English. The moment of realization—"Wow, I can speak in English"—is a powerful motivator, as it reflects tangible progress. This positive feedback loop encourages further participation and creates a mindset where students are more willing to take risks and speak confidently in future tasks.

The second question is students provide an example of a project where they had to communicate extensively in English, and they said that

Student A: We are talking about explaining the process of making iced tea, starting from each step of the process in detail.

Student B: when I explain about how to make papeda.

Student C: when I explain how to make a kite

These are examples from students' daily lives, and the students are confident speaking. It is good to take topics of speaking based on authentic examples.

The third question is about collaborating with friends and teacher improve speaking skills, and all the students had the same answer. They said that

“we always speak and if there is mistakes on miss pronunciation, our classmates correct. Besides, if we forget certain sentences, they help to remind. The teacher also gives comments”.

This comment emphasizes the importance of a supportive and collaborative learning environment where students actively help each other improve. The fact that classmates correct mispronunciations and remind each other of forgotten sentences fosters a sense of community and shared responsibility in the learning process. It also builds confidence, as students know they can rely on their peers for help without feeling judged. The teacher's role in providing additional comments ensures that students receive constructive feedback, guiding them to improve both their accuracy and fluency. This combination of peer support and teacher feedback is crucial for creating a positive, interactive classroom atmosphere where mistakes are seen as natural learning steps and everyone feels encouraged to participate.

The next question is about having more confident in doing project in PBL and all students said that

“shiness and scarry are faded because in PBL, the students got much time to practice in groups. We feel more confident”.

PBL encourages collaborative learning, which allows students to practice language in a less formal, less intimidating environment. When students engage in discussions, brainstorming, or problem-solving tasks with their peers, they often feel more comfortable taking risks and using English. This supportive, peer-driven environment helps reduce performance anxiety, a common barrier to language production.

The last question ask about challenges faced by students on the use of PBL that related to their speaking skill and PBL can assist to reduce those. All students have the same answer and they say that

“As beginners in English level we are Feeling nervous, afraid of making mistakes, lacking confidence when speaking in front of a large audience. By practicing again and again all the time in groups, these problems can be overcome”.

It is completely normal to feel nervous or afraid of making mistakes when learning a new language, especially in front of a large audience. However, practicing regularly in groups can be incredibly helpful. The more someone speaks, the more comfortable and confident he/she becomes. It is important that making mistakes is a natural part of the learning process, and each mistake is an opportunity to improve.

## **Discussion**

Based on the previous results of the study, some points are considered to discuss such as teacher's belief on the use of PBL teaching mode in teaching speaking, PBL can help



students' speaking ability, students' teamwork can be facilitated, teacher's, students confidence are increased, and classmates' feedback can work in PBL.

The sample of the English teacher in this study is an experienced teacher. She chooses an appropriate teaching model, PBL, to engage her students to speak. This is based on her belief. PBL provides a context for students to engage in meaningful, goal-oriented tasks that simulate real-world problems, thereby promoting language use that is functional and communicative. According to Thomas (2000), teachers who adopt PBL view it as a powerful tool for fostering authentic speaking practice because students are required to solve problems and collaborate, demanding them to articulate ideas, negotiate, and present solutions in a natural, unstructured way. "Teachers generally believe that PBL makes the language learning process more authentic, with students using the target language for real purposes in realistic settings" (Thomas, 2000).

The opinion about PBL can help students to achieve speaking ability, both teacher and students agree that PBL can help students speak. Beckett and Slater (2005) suggest that PBL fosters a student-centered environment, where students are more motivated to speak because they see the practical value of using English in collaborative, real-life contexts. By engaging in projects that have clear, achievable goals, students feel a greater sense of ownership over their learning, which in turn boosts their confidence. The process of working together and communicating in English to solve problems or complete tasks encourages active participation, even among students who might be hesitant to speak in more traditional settings. Thus, in PBL, the collaborative nature of projects means that students often work in groups, providing a supportive environment where they can practice speaking English in a low-pressure setting. The authentic nature of the tasks reduces anxiety because the focus is on completing the project, rather than on speaking perfectly. This encourages students to take risks and experiment with language without the fear of making mistakes, which is a common barrier to speaking in traditional classrooms.

The next point is about students' teamwork help them to speak in PBL. According to Coyle, Hood, and Marsh (2010) PBL encourages interaction among students, which is crucial for developing speaking skills. The emphasis on collaborative tasks means students are continuously engaging in verbal communication with peers, whether it's through discussions, debates, or brainstorming sessions. Through these interactions, students have more opportunities to practice their speaking skills in a dynamic and meaningful way. This means that the group-oriented nature of PBL helps students practice speaking in real communicative contexts. They are required to negotiate meaning and express their ideas in ways that make sense to others. The regular need for students to explain their thought processes, share opinions, and give feedback to their peers strengthens their ability to speak fluently. Moreover, by listening to and interacting with others, students learn different ways of expressing themselves and refine their language skills through collaboration.

Students' confidence is increased during doing the project. According to Stoller (2006) emphasizes that PBL encourages active engagement by requiring students to participate in tasks that demand high levels of interaction and communication. As students work together to complete projects, they naturally become more comfortable using the target language in authentic contexts, which leads to greater confidence in their speaking abilities. Thus, PBL emphasizes learning by doing, which helps students move beyond passive learning and engage

actively with the language. Through this process, students develop both their speaking and interpersonal skills. Since the activities are focused on real-world problems, students often feel more motivated to speak out, thereby boosting their confidence. For instance, preparing and presenting a group project allows students to practice language repeatedly in a low-stress environment, leading to improved fluency and greater confidence over time.

Last, teacher's and peer feedback can help students in doing project. According to Beckett and Slater (2005), teacher feedback in PBL is essential for providing students with the guidance and support they need to improve both their language and problem-solving skills. Teachers act as facilitators in PBL environments, offering constructive feedback that helps students refine their ideas, clarify misunderstandings, and develop their speaking skills. In other words, teacher feedback in PBL is particularly valuable because it supports students throughout the learning process. It helps learners reflect on their progress, identify areas of weakness, and enhance their language use in real-time. For instance, when students are presenting their findings or discussing project-related tasks, teachers can provide immediate feedback on their speaking—such as on pronunciation, fluency, or the clarity of their arguments.

Moreover, Coyle, Hood, and Marsh (2010) argue that peer feedback plays a pivotal role in PBL by creating a collaborative learning environment where students not only improve their own speaking but also help their classmates develop their skills. Feedback from classmates offers an additional perspective and allows students to engage in self-regulated learning. Peer feedback encourages students to articulate their thoughts about each other's work, fostering critical thinking and communication skills. It can be said that Peer feedback thus promotes a safe learning environment where students can learn from each other's strengths and weaknesses, which is essential for language improvement, particularly in speaking.

## **CONCLUSION AND SUGGESTION**

### **Conclusion**

Based on the findings from surveys on the use of Project-Based Learning (PBL) in speaking classes, PBL has significant impact on students' speaking skills, as well as their teamwork, feedback and language development. The results indicate that

1. The English teacher is a professional in implementing PBL as a teaching model in her speaking class
2. PBL can help the students to improve their speaking skills
3. PBL can facilitate teacher to be more confident when speaking
4. PBL can give teacher and students opportunities to give feedback.
5. Students' confidence in speaking is increased

### **Suggestion**

It is simply to suggest that Project Based Learning can be used by the teacher in the future in their teaching. Besides that future researchers may use the results of this study in planning different study with the same theme, it is PBL.

## **REFERENCES**

Aini, S. N., Cahyo, D. N., & Zubaidah, S. (2023). The effectiveness of Project-Based Learning (PBL) on enhancing English speaking skills of Indonesian EFL students. *International*

Journal of Education, Culture and Society, 8(1), 25-34.  
<https://doi.org/10.11648/j.ijecs.2023.0801.03>

- Al-Mahrooqi, H., Al-Khader, M., & Al-Kharusi, S. (2022). Project-based learning for enhancing EFL students' speaking skills in an international context: A case study of Saudi Arabia. *Asian EFL Journal*, 24(1), 15-34. <https://www.asian-efl-journal.com/>
- Beckett, G. H., & Slater, T. (2005). The Project Framework: A Tool for Language and Content Integrated Learning. *ELT Journal*, 59(2), 108-116.
- Chard, S. C. (2001). Project-Based Learning: A Key Teaching Strategy. ERIC Digest.
- Coyle, D., Hood, P., & Marsh, D. (2010). *CLIL: Content and Language Integrated Learning*. Cambridge University Press.
- Doyle, T. (2020). *Learner-Centered Teaching: Putting the Research on Learning into Practice* (2nd ed.). Stylus Publishing.
- Hattie, J. (2021). *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement* (2nd ed.). Routledge.
- Krashen, S. D. (1985). *The Input Hypothesis: Issues and Implications*. Longman.
- Long, M. H. (1983). Native speaker/non-native speaker conversation and the negotiation of comprehensible input. *Applied Linguistics*, 4(2), 126–141.
- Mora, M. (2010). *Teaching Speaking in a Classroom*. University of Medan. Available at: <http://www.scribd.com/doc/27235>, 175.
- Piaget, J. (1972). *The Principles of Genetic Epistemology*. Routledge.
- Richards, J. C. (2015). *The Changing Face of Language Teaching*. Cambridge University Press.
- Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research*, 12(3), 329-363.
- Stoller, F. L. (2006). Project Work: A Means to Promote Language and Content. *The TEFL Web Journal*, 1(1), 1-18.
- Stoller, F. (2006). Establishing a Theoretical Foundation for Project-Based Learning in Second and Foreign Language Contexts. In G. H. Beckett, & P. C. Miller, Eds., *Project-Based Second and Foreign Language Education: Past, Present, and Future* (pp. 19-40). Greenwich, CT: Information Age
- Thomas, J. W. (2000). *A Review of Research on Project-Based Learning*. The Autodesk Foundation.
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.