NOBEL
Journal of Literature and Language Teaching
Volume 13, Number 1, April 2022, 1-17
available at http://jurnalfahum.uinsby.ac.id/index.php/nobel/article/view/406
DOI: 10.15642/NOBEL.2022.13.1.1-17

FACILITATING STUDENT VOICE THROUGH SANDWICH PRINCIPLE OF TEACHING (SPoT): RESEARCH-LED TEACHING IN LEARNING RESEARCH PROGRAM

Martina Mulyani[1], Alviaderi Novianti[2] ✉

STKIP Pasundan, Jl. Permana 32 B Cimahi, West Java, Indonesia[1,2]

Article Info

Article History:
Received August 2021
Accepted February 2022
Published April 2022

Keywords:
collaborative learning, SAR approach, SPoT principle

Abstract

This study explores the implementation of the Sandwich Principle of Teaching (SPoT) in facilitating the students to voice their thoughts properly while learning about research. This case study is guided by the theory of research-led teaching from Walkington and SPoT from Wahl. The study employed 30 students of higher education as research participants. In 14 weeks, the teacher alternately used traditional and collaborative learning. The students were involved in various learning experiences; formulating lesson goals, reading journal articles, selecting the article, identifying the gap, and choosing and defining research topics. The findings revealed that the integration of SPoT into research-led teaching provides guidance for the teacher to teach research and space to voice their thought under the learning research program. The findings show a positive attitude on students' experiences in each stage of the learning research program through SPoT. Based on the findings, it is concluded that the integration of SPoT into research-led teaching could provide the students a space to voice their thought in the learning research program. They got better learning experiences as they could engage actively in the class and voice their thoughts as well.

✉Correspondence:
Email: n.alviaderi@gmail.com

p-ISSN 2087-0698
e-ISSN 2549-2470

INTRODUCTION

Teaching and learning are developmental and dynamic processes for both teachers and students (Lumpkin, 2020). As they construct knowledge, they should continuously grow in its process. Teachers should change their beliefs on teacher-centered learning. They should leave the habit of spoon-feeding to the student in their learning process. It might be a great challenge for the teacher to convince students to be responsible in their learning (Lumpkin, 2020). Johnson (2017) showed that students could experience better in their learning when the teacher provides a highly effective design of the teaching and learning process, including assisting them in learning outside the classroom, setting the goal, engaging students to participate in the lectures, and solving problems

In the Indonesian context, in most cases, traditional teaching and learning remain dominant in universities and colleges (Weinberger & Shonfeld, 2018). Especially in more theoretical classes, students tend to sit and listen to a lecture that has been structured and prepared by the instructor. At the same time, learning needs to significantly impact students' knowledge (Dehler & Welsh, 2014). It has to encourage students to be actively involved in their learning. Students have to be facilitated to voice their thoughts in the learning process, as Rennie Center for Education Research & Policy (2019) acknowledges that student voice could help them construct the knowledge.

The student's voice represents democracy in the classroom. It is facilitated when students are involved in the teaching and learning environment that influences their study behavior. Higher education students, who are more independent and responsible for their learning, should be facilitated and encouraged to voice their thought. As they are allowed to have a voice in school, it might lead to an increased likelihood that they will experience self-worth, engagement, and purpose in school (John & Briel, 2017). Rudd, Colligan, and Naik (2006) propose SAR (student as a researcher), an approach to help students act as audience and as practitioners.

Student as a practitioner is a stage usually conducted in the final year of undergraduate study in which the students move from students learning subject matters to the beginning practitioner. It goes without saying that before practicing their skills, the students should be equipped with good working knowledge (Lin & Jain, 2018). Likewise, in the case of administering research on the teaching of English as a foreign language (TEFL), the students should manage themselves to understand the theory of learning, the theory of research, and not to mention the theory of language. The theory is the fundamental building block in learning

that students can share, review, and do research (Schunk, 2012). There will be no research if there is no theory underlying it.

Preparing students to do research, the universities provide some disciplines in the area of research for students to learn. Under the framework of SAR, this stage is known as the research-led model in which the students learn about ongoing research in the discipline and the learning process is 'information transmission' model (Griffiths, 2004; Healey et al., 2010; Xie et al., 2018). The information transmission instructional model demonstrates a teacher-centered teaching and learning model. The teacher's role is to design lessons with predetermined goals and present knowledge and skills in a predetermined order. The students passively acquire teacher-specified knowledge and skills.

Recently, the transmission instructional model has been developed and improved. The old fashion model is named the traditional transmission model, and the newly-developed one is called the improved transmission model, respectively. The former applies the principle of teacher-centered learning (TCL) strictly. At the same time, the latter still satisfies the definition of the transmission instructional model but brings the characteristics of student-centered learning (SCL) such as grouping and inductive method of teaching (Xie et al., 2018). Regarding learning research, it is essential that the teacher employs an improved transmission model rather than implement a traditional transmission model, especially in the stage in which students act as audiences to accommodate students' voices.

The improved transmission model can be carried out by combining the features of student-centered learning (SCL) into teacher-centered learning (TCL). A teaching model that caters to both SCL and TCL in its learning process is the Sandwich Principle of Teaching (SPoT). SPoT is the teaching model Wahl (2005) proposed, as cited in (Bock et al., 2020), systematically providing alternate phases of TCL and collaborative learning.

SPoT has been applied in research and disciplines. Most of them concerned on the effectiveness on the use of SPoT in teaching (Billore, 2021; Bock et al., 2020; Kadmon et al., 2008; Wang et al., 2018). However, the use of SPoT in research-led teaching is still underresearched. Thus, with this in mind, the current study tries to integrate SPoT into the research-led stage to promote student voice in learning research programs; by using the SPoT and research-led Teaching theory. In addition, variation and group teaching are commonly found in the classroom. Under the learning research program, students employ two different behaviors as audience and as a practitioner. Research led, the stage of learning research in which students act as an audience to receive information becomes the main interest of the study. Regarding this, this research is significant at giving insight on teachers on the theoretical class

to not only deliver a lecture and spoon-feed the students but also allow them to be actively involved in constructing the knowledge.

REVIEW OF LITERATURE

Research-Led Teaching

Teaching can be research-led in which the students learn about ongoing research in the discipline. The learning process in this approach is the 'information transmission' model. However, during information transmission, the students should act as audiences in the research-led stage. Through the teacher's presentation, they receive information about the research, including the background, research process, and methodologies (Walkington, 2015). Concerning this, the study pays attention to the research-led phase. It attempts to implement the improved information transmission model by infusing SPoT in research-led teaching.

The topic dealing with the improved information transmission model is worth researching. By far, people believe that information transmission instruction is teacher-centered—the teachers design lessons with predetermined goals and present knowledge or skills in a predetermined order. In contrast, the students passively acquire teacher-specified knowledge and skills. This study then tried to improve the transmission instructional model into more student-centered by integrating SCL characteristics into information transmission instruction. The study used SPoT (Sandwich principle of teaching) to achieve the purpose, which will be discussed in the upcoming section.

SPoT (Sandwich Principle of Teaching)

The sandwich principle is a teaching concept that focuses on individual learning and personal belongings (Bock et al., 2020). It refers to a didactic method with regular alternation between individual and collective learning phases within a given learning unit (Bock et al., 2021). Since it implicates individual and collective learning phases, it facilitates both SCL and TCL in its learning process.

Wahl's (2005) SPoT, cited in Huber & Huber (2008), provides systematically alternate phases of TCL and collaborative learning. In the Indonesian context, traditional learning that employs TCL is commonly found in the classroom (Weinberger & Shonfeld, 2018). Students sit and listen to a lecture that has been structured and prepared by the instructor. This old-fashioned method is often supplemented with presentation slides, class notes, recitation, and memorization (Andriyani, 2015). The educators are likely to make only a slight improvement

in their traditional teaching, although they seem to be knowledgeable for collaborative learning and be in favor of incorporating it into their teaching,

Collaborative learning is a variety of educational approaches exploring students or teachers and students' intellectual effort to interact appropriately with one another. Under collaborative learning, students usually work in groups, mutually searching for understanding, solutions, or meanings, or creating a product (Laal & Laal, 2012). Collaborative learning accommodates the cooperative instead of the competitive situation. In a cooperative learning situation, students work in a team to help each other. The interaction is marked by positive goal interdependence with individual accountability. Each student's success depends not only on their performance but also on the group's performance concerning established- criteria. Some ways to structure positive interdependence within a learning group are a jigsaw and peer assessment (Johnson & Johnson, 1994 cited in Evcim & İpek, 2013).

Peer assessment and jigsaw are two kinds of activities conducted under the framework of collaborative learning. Peer assessment has been deployed for centuries and recently renewed, especially in the form of formative assessment. During peer assessment, students can function as assessors and assessees. Since peer assessment is likely to involve intelligent questioning coupled with self-disclosure, it may promote self-assessment and allow the student to identify misconceptions and earlier errors (Omar et al., 2018). Jigsaw, differently, is a grouping strategy that enables peer assessment to occur. In a jigsaw, students can be organized into "expert" groups who work in a team to learn the material, assess and solve the problem, then return to their "jigsaw" groups to share their learning (Halimah & Sukmayadi, 2019). Besides group working, another feature of SCL used by the study is an inductive model of teaching. In this study, students are exposed to several journal articles to identify the gap, the aim of the research, the methodology, the analysis, the result, and the significance.

The study, which focuses on facilitating student voice in the learning research program, tries to integrate SPoT in research-led teaching. SPoT, which combines TCL and SCL, allows a student in research-led to act not only as an audience (Students as Audiences/SAA) but also learn from inquiry and work together in a group to share information. Capturing students' voices, the study tries to picture the learning experience got through by students when SPoT is applied throughout the research-led stage and to scrutinize students' engagement in the learning experience offered by SPoT in research-led teaching.

METHOD

This case study employed observation and interview as instruments for data collection. Thirty juniors of one higher education in Cimahi West Java Indonesia, who were involved in the study as the sample, were observed while engaging in a learning research program. Some of them were interviewed about their perceptions regarding their activities in SPoT. The interview was conducted by the researcher, who also acted as the lecturer at the end of the semester. It focused on facilitating student voices. The study chose a learning research program as the course in which SPoT that accommodates both TCL and SCL was applied. The research timeline can be seen in the table to come.

Table 1. Research Timeline

Activity	Meeting															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Figuring out the teacher and students' perception about their role in the classroom																
Negotiating the learning program with the appointed teacher																
Involving students in selecting the goal and informing them about the collaborative learning and peer assessment, and negotiating the rule																
Exploring the journal and identifying the gap in it.																
Students seek for the journals and identify the gap in the journals of their group choices																
Assessing Peer presentation on the gap (jigsaw)																
Reviewing the students' journals																
Exploring the journal and Identifying the connection between title, and gap																
Students seek for the journals and review the connection between title, and gap, in the journals of their group choices																
Assessing peer presentation on the connection between title and gap (tea party jigsaw)																
Reviewing the students' journals and asking their preference between jigsaw and tea party jigsaw																
Exploring the journal and Identifying the connection between title, gap, aims, RQ, and methodology																
Students seek for the journals and review the connection																

Activity	Meeting															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
between title, gap, aim, and RQ in the journals of their group choices																
Assessing peer presentation on the connection between title, gap, aim, and RQ (tea party jigsaw)																
Reviewing the students' journals																
Students create the introduction for their research																
Students present the introduction before the peer "expert"																
Reflection																
Students create a poster containing an introduction of their own research																
TCL = student as audience																
SCL = Students as participant																

In TCL, the core materials of the course were delivered in class, including how to present the background of the research, introduce the gap and aim, and specify the focus of the research in the form of a research question(s). On the other hand, during SCL, the students worked in groups to select the articles, identify the gap and the goal of the research article, review the research questions and carry out peer assessment. In short, applying SPoT, the study offered various learning experiences, including the transmission of knowledge, collaborative learning, peer assessment, and reflection.

The study began its investigation by introducing the research program to the students. Thirty students who participated in the course were given an informed consent form, and they were asked to engage in weekly group work and jigsaw. The students were informed about all the activities they should take in the learning research program to decide whether to take part or not because it was voluntary.

The learning research course was initiated by research-led teaching in which the teacher acts as the center of learning. However, in this study, the teacher used SPoT as the alternative way of teaching research. So, during research-led teaching, the center of learning was not merely the teacher, but the student had the opportunity to be the center of learning. In short, both TCL and SCL were alternately demonstrated during research-led teaching in this study.

The research-led teaching was started with TCL. The teacher explained some information related to research background, gap, aim, and questions, showed the students some sentences indicating such information, asked the students to work in a group, and let them identify the

targeted information in the articles given. Then, the students shared their findings with their friends from different groups. At the end of the preparation stage, the teacher assessed the students' understanding by providing corrective feedback. These activities were followed by SCL. The teacher assigned students in groups to select articles of their interest, then students were asked to identify the research gap, aim, and methods in the articles chosen. Later, the results of the group works were shared and examined by their peers during jigsaw and peer assessment. In a jigsaw, students can perform as experts by which they took part in reviewing the research articles and assessing their peer performances. Carrying out this stage, the students demonstrated their ability in English and tried to convince their understanding of their chosen articles to their friends who would assess their performances. During jigsaw, the teacher monitored the students' activity and provided some feedback and encouragement when they felt insecure and reluctant to speak in front of their peers. At the end of the jigsaw, the student held reflection, and the teacher provided some feedback regarding their comprehension and performances during jigsaw and peer assessment.

TCL then retook place when the teacher provided their comment and suggestion about the student's performance during jigsaw and peer assessment. Then, the teacher opened the discussion and reflection regarding the material and asked students to suggest the activities in the next stage. The combination of knowledge transmission, collaborative learning, peer assessment, and reflection went into the cycle throughout the research-led teaching. The cycles of SPoT that were created and implemented by the author can be seen in the following figure.

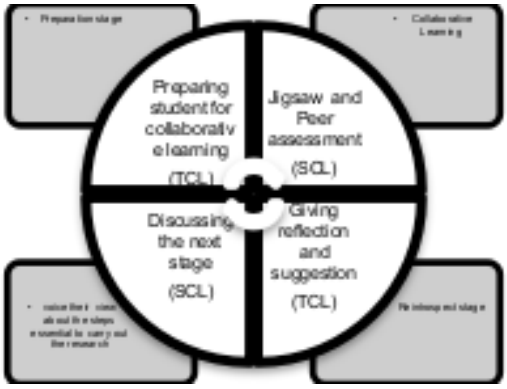

Figure 1. The Cycle of SPoT in Research-Led Teaching

Figure 1 points out that traditional learning and cooperative learning can occur consecutively during research-led teaching. Preparing for the collaborative learning was conducted in a conventional way in which the teacher presented some information regarding the research's background, gap, aim, and research questions. Once the students had got the basic knowledge of the research, collaborative

learning was launched. The students were asked to work in a group to select a research article and identify its gap, aim, and research question. Then they shared their readings with their peers, who would listen and evaluate their comprehension of research. During this activity, the teacher monitored and provided feedback regarding the students' performance and comprehension of research. The activity was then continued with TCL, in which the teacher reviewed the lesson and students' achievement during SCL. At the end of the cycle, the students did reflection and offered some views for the upcoming meeting. Then the new cycle started again.

RESULTS AND DISCUSSIONS

This study, which accommodated the use of SPoT into research-led teaching, was able to gain some findings regarding students learning experiences. The cycle of SPoT in research-led teaching in ELT (see figure 1) consisted of the preparation stage, collaborative stage, re-introspect stage, and discussion stage using TCL and SCL alternately. In the preparation stage, where TCL occurs, students get information about the research background, gap, aim and research questions. The students in the group then identified the gap, aim, and research questions in the articles given and discussed their newly gained knowledge with their peers to understand the research material better. In the collaborative stage, the activities tend to be more SCL. The students worked in the group to select research articles and identify the gap, the aim, and the research. Next, they shared their findings and provided evaluations while the teacher monitored and provided feedback. This stage was followed by the re-introspect stage, in which the teacher took control. The teacher reviewed the lesson and gave feedback, and finally, in the discussion stage, the students became the center of learning again. They did reflection and provided suggestions about the material and activities for the upcoming meeting. A clear description of the students' experience in the learning-research program can be found in Table 2.

Table 2 shows the students' experiences when SPoT was infused into research-led teaching. It can be seen that SPoT allows students to serve as a listener and the center of learning. Since the students play an active role in the learning process, it proves that the implementation of SPoT in the teaching and learning process is more effective and significantly leads to a better learning outcome than the traditional method of teaching (Bock et al., 2021). In addition, by the students-active-role in the learning, the objective of teaching will also be facilely achieved as the students themselves are regarded as the core of education (Bayram-Jacobs & Hayirsever, 2016). The section to come was the dialogs capturing the students' responses towards the learning experience.

Table 2. Student's Learning Experiences

Domains	Activities	Learning Experience
Preparation Stage	Knowledge transmission	• Students listened to the teacher's explanation about the gap, aim, and research questions • Students identified the gap, aim, and research questions in the articles given • Students worked in the group and collaborated to share their comprehension, contrast, and compare their findings • Students assessed their friends' English skills while presenting their work.
Collaborative learning	Jigsaw	• Students read many articles and selected the one that interested them • Students shared their articles with their peers and discussed their findings in English • As the students in the group were given the responsibility to assess one another, they actively took part in the group work as they were accounted as individuals.
	Peer Assessment	• Students could compare and contrast their work with their friend • Students could evaluate their friends' English skills while presenting their articles • Students felt a little bit nervous being afraid of providing unfair scores for their friend • Students used their English during this activity
Re-introspect Stage	Giving Reflection	• Students provided their reflection about the articles and the learning activity • Students shared their reflections and got feedback from the teacher
Discussion Stage	Reviewing and Brainstorming	• Students gave some opinions about the following activities they wanted to do

The research- led teaching in this study consisted of the preparation stage, collaborative stage, re-introspect stage, and discussion stage. The preparation stage was begun by negotiating the goal with the students. The teacher offered some goals for students and told them the consequences following each goal. When the agreement about the goal was achieved, the teacher transferred the knowledge. The students' responses toward knowledge transmission were that the teacher was the one who usually explained and presented the material. Their statements can be found in the following table.

Table 3. Knowledge transmission

Students	Opinion
De**	*"Ya, seperti biasa. Materi diterangkan di depan oleh guru, kita hanya mendengarkan. Selanjutnya kita biasanya diminta membuat kelompok dan mengerjakan tugas bersama dalam kelompok tersebut. Sejauh ini itu aja sih"* (Ya, nothing special. The teacher presents the material, and we listen to them. Then they will ask us to form group works then provide us with some tasks to do. That is it.)
Ra****	*"Yah biasa aja, guru di depan kelas menerangkan dan siswa mendengarkan, bertanya kadang kadang atau siswanya di minta untuk melakukan presentasi dan guru memberi upan balik. ya gimana gurunya aja ...yang standar aja."* (As usual, the teacher in front of the class explains the lesson, and the students listen. We, students, sometimes ask questions or do the presentation and listen to the teacher's feedback. It is just up to the teacher. The standardized one.)
Di***	*"Seperti biasa tidak ada yang spesial, guru menerangkan siswa mendengarkan, atau sebaliknya siswa melakukan presentasi, guru memberi feedback. Kita hanya melakukan apa yang diminta guru."* (As usual, nothing is special. The teacher presents and explains the material, the students listen or vice versa, the students are given time for the presentation, and the teacher provides feedback. we do what the teachers ask us to do)

However, the study that implemented collaborative learning in this research-led stage found that the students can better comprehend the material by sharing it with their friends. In line with this, Zhang and Bayley (2019) found in their study that giving the students opportunities to dialogue with peers helps them enhance their knowledge and learning experience. In addition, through this sharing, students feel more comfortable and stress-free in discussing the topic of learning (Filade et al., 2019). The upcoming table presents the students' opinions regarding collaborative learning.

Table 4. Collaborative learning

Student	Statement
Wi***	I share knowledge with my friends help each other to understand the material
Ri***	I can learn together during group work and ask my friend when I cannot understand something.
Ci**	I discussed it with my friend. We help each other understand the task and respect each other when there are differences of opinion until we find the solution to our problem.

The students' opinions regarding research revealed that knowledge about research could be transmitted through the teacher's explanation or group work in which students share their comprehension within the group and between the groups. The student's participation in the group is also encouraged by the implementation of peer assessment which supports individual accountability as one element of collaborative learning. Through peer assessment, students have the opportunity to assess and be assessed by their peers. Moreover, through the implementation of peer assessment, since the students were encouraged to provide fellow students' feedback about their works, their critical thinking might be developed (Topping, 2009), and they were also trained to take greater responsibility (Grob et al., 2018). Further,

individual assessment enforces the students to review the lesson and prepare themselves to face it before the lesson.

Table 5. Students' perception of peer assessment

T	***"De***.. gimana sandwich yang pertemuan kemarin? Belajar dulu ga sebelum ke kelas*?"** **(De*** how is the SPoT? Have you studied the materials before the lesson?)**
D	*"Ya Maam, belajar dulu, mesti baca dan menguasai materi dulu. Ya mau tak mau pokoknya belajar dulu sebelumnya"* (Ya, I must read and comprehend the lesson first. Ya, like it or not, we must study prior to the lesson)

The student, in this case, clearly said that she was forced to study at least the night before the class because her achievement was scored during peer assessment. Peer assessment is one feature of collaborative learning that enables students to learn. They still felt doubtful about the objectivity of the assessment, though. Their expressions regarding the objectivity of peer assessment can be found in the following statements.

Table 6. The objectivity of peer assessment

Turn	Actor	Statement
1	Sa***	Peer assessment is not objective. Not all people do their job seriously
2	Ro**	Some students provide subjective assessment since they know the assessee well
3	Sa***	My friend does not understand the material at all, so I feel confused about what score should I give to him

Although peer assessment has weaknesses, the current study showed that it could encourage students to read many journals. During reflection, students said they managed to read more than 15 journals related to the topic of their interest.

Table 7. Student's interest in reading

Actor	Statement
T	*"Jurnalnya dibaca? Semuanya ada 5 jurnalnya gimana.. dibaca ga?"* (You read the journal, did not you? Altogether, there are 5, so how did you read them?)
D	*"Waktu itu ada kira kira 15 (.) ya dibaca"* (It was about 15 journals altogether, I read them all)
T	Oh (.) that's great 15 journals
D	*"Iya heheh (.) ya begitulah"* (it is)
T	*"Bagus, sebelumnya berkeinginan untuk baca jurnal ga*?" (Before, did you have any attention to read the journal?)
U	*"Dulu nya ga .. (.) buat apa sih*?" (No, I did not, I did not want to read the journal, what for?)

The table pictured the students' interest in reading research articles. The students contended that they did not bother reading journal articles before. Nevertheless, since peer assessment was implemented, they managed to read many articles and gain much information

after reading some journals. Equipped with the knowledge from reading, the students could give feedback concerning the terminology and teaching and learning activity in their class.

Table 8. Students' reflection

Actor	Statement	Opinion
T	*"Hehehe... kalau sekarang gimana, meneliti itu bagaimana?"* (Hehehe...by the way, how is it now, what do you think about research?)	
D	*"hehe jadi mikirin.. lucu ..*" (Yes Maam, I start to think, and I keep thinking…that is funny.?)	Informing
U	*"Jadi sekarang mah kita harus ngerti topik dan isi nya tentang apa."* (Yeah, now we really must know the topic and the content of the journal)	Confronting
T	*"Oooh... tadinya ga tertarik jadi tertarik ya*?" (Oooh...you firstly were not interested in reading journal but then you changed)	
D	*"kalau saya tergantung topiknya*" (For me, ya it depended on the topic)	Reconstructing
T	*"Ok…Belajar apa dari jurnal?"* (what do you get from a journal?)	
D	*"Apa ya ..misalnya ada informasi yang kata orang itu bener tapi kemudian menurut penelitian itu salah ...jadi dengan jurnal informasi salah bisa diperbaiki*." (Well … for example, there was a piece of information assumed to be true, but then it was denied by the journal. So journal provides confirmation or negation of the information)	Informing
T	*"Oh begitu… misalnya?"* (I see...for example?)	
D	*"di extensive reading misalnya, kita harus buat reading log tapi readingnya di tentuin padahal kan extensive reading artinya kita membaca yang kita enjoy aja."* (For example, in extensive reading, we must make a reading log. However, the topic was given. In fact, extensive reading means we read the thing we enjoy reading.)	Confronting informing

The table shows the students' reflection regarding the "extensive reading course and its activity in the classroom." They were able to give comments and evaluations after reading several journal articles.

Concerning the findings, there are some important things to highlight. First, research–led teaching, which generally provides room only for the teacher to present the material related to research, can also allow students to act not only as an audience but also as the center of learning through the implementation of SPoT, a teaching principle that integrates two distinguishing principles of teaching; TCL and SCL. The implementation of SPoT in research–led teaching enabled students to set the goal and transmit knowledge. They worked in the group to share their comprehension and provide feedback. In addition, the students managed to assess their peers and conducted discussion and reflection towards the learning material and learning

activity. Such activities characterize student-centered learning (Ivaniš et al., 2009; Xie et al., 2018).

Second, SPoT underlying the research-led teaching allows the teacher to carry out the activities using a collaborative learning framework to reinforce students' learning research. These collaborative learning activities help students internalize their comprehension of the research gap, research aims, and specific topics (see Tables 2, 3, and 4). This current study employed two activities of collaborative learning. They are the jigsaw and peer assessment.

Third, SPoT in research-led teaching allows the teacher to accommodate the student's voice. Jigsaw and peer assessment, the two collaborative learning activities, can facilitate students' voices. During jigsaw, students can be organized into "expert" groups who work in a team to learn the material, assess and solve the problem, then return to their "jigsaw" groups to share their learning (Halimah & Sukmayadi, 2019). Meanwhile, in peer assessment, the student who acted as "experts" can assess those who became students or audiences during jigsaw (Halimah & Sukmayadi, 2019). The opportunity of students to assess one another allowed them to set the rubric and prepare themselves to meet the criteria so that they were able to gain targeted or expected scores. While preparing for the peer assessment, the students said they managed to read many articles. The students stated they were motivated to get more information to fulfill their curiosity. This phenomenon goes in line with the theory of jigsaw, which facilitates expert groups to inquire the knowledge (Halimah & Sukmayadi, 2019) then later they were able to do self-assessment and identify misconceptions; in turn, the students were able to provide feedback (Karami & Rezaei, 2015; Omar et al., 2018).

In a nutshell, the study revealed that research- led based SPoT offers three strong points. SPoT in research-led teaching allows the students to act as audience and as the center of learning. It enables the teacher to employ collaborative learning activities through research-led teaching to accommodate students' voices.

CONCLUSION

The findings in the study pinpointed the learning experience the students got through in research-led teaching-based SPoT. It revealed that research-led teaching, which TCL generally dominates since it focuses on providing students the content in the subject matter, can turn out to be learning activities that facilitate students' voices. The study, which integrates SPoT into research-led teaching, provided the student learning experiences that allowed them to act as audience and as the center of learning. When performing as an audience, the students can listen to the teachers and their peers during sharing. On the other hand, when acting as the center of

learning, the students can provide feedback and assessment to their peers. Besides, the integration of SPoT into research-led teaching offers guidance for the teacher to teach research and provide them space to voice their thought under the learning research program. The findings showed that the students learn in transmitting knowledge in the preparation stage. They could communicate with their friend and pay more attention to the teacher's explanation knowing that their comprehension would come to the test. While in the collaborative learning stage, this SPoT could facilitate the students to engage actively. They were willing to voice their thoughts and work in a group as they were accounted as individuals during peer assessment, although they felt afraid of subjectivity. In addition, in the re-introspect stage, students felt comfortable as they could read many articles of their interest. Moreover, in the discussion stage, students were actively involved in determining the following activities. Under the framework of research- led based SPoT, the teacher can employ collaborative learning in which the student can actively participate in group work and between groups activities, also conduct evaluation during peer assessment. Further, the collaborative learning activities through which students can share their opinions about the learning activities and material allow research-led based SPoT to accommodate students to voice their thoughts in English properly.

To sum up, it is concluded that the integration of SPoT into research-led teaching could provide the students a space to voice their thought in the learning research program. They got better learning experiences as they could engage actively in the class and voice their thoughts. For further research, it is suggested to investigate how far this SPoT has been implemented in a broader level of education and its impact on any student level.

Acknowledgments

Our gratitude goes to the teachers (lectures) and participants who volunteered to participate in the research. With their support, the research can be held.

REFERENCES

Andriyani, N. (2015). *Using the direct method in teaching to improve students' speaking skill at Purikids language course* [Yogyakarta State University]. https://eprints.uny.ac.id/28019/1/Thesis.pdf

Bayram-Jacobs, D., & Hayirsever, F. (2016). Student-centred learning: How does it work in practice? *British Journal of Education, Society & Behavioural Science*, *18*(3), 1–15. https://doi.org/10.9734/BJESBS/2016/28810

Billore, S. (2021). The sandwich model workshop - An innovative integrated teaching approach for theory and practice-based knowledge in marketing. *Marketing Education Review*, *31*(2), 99–110. https://doi.org/10.1080/10528008.2021.1875848

Bock, A., Idzko-Siekermann, B., Lemos, M., Kniha, K., Möhlhenrich, S. C., Peters, F., Hölzle, F., & Modabber, A. (2020). The sandwich principle: Assessing the didactic effect in lectures on "cleft lips and palates." *BMC Medical Education*, *20*(310), 1–7. https://doi.org/10.1186/s12909-020-02209-y

Bock, A., Thomas, C., Heitzer, M., Winnand, P., Peters, F., Lemos, M., Hölzle, F., & Modabber, A. (2021). Transferring the sandwich principle to instructional videos: Is it worth the effort? *BMC Medical Education*, *21*(1), 1–7. https://doi.org/10.1186/S12909-021-02967-3/TABLES/2

Dehler, G. E., & Welsh, M. A. (2014). Against spoon-feeding. For learning. Reflections on students' claims to knowledge. *Journal of Management Education*, *38*(6), 875–893. https://doi.org/10.1177/1052562913511436

Evcim, H., & İpek, Ö. F. (2013). Effects of jigsaw II on academic achievement in English prep classes. *Procedia - Social and Behavioral Sciences*, *70*(2013), 1651–1659. https://doi.org/10.1016/J.SBSPRO.2013.01.236

Filade, B. A., Bello, A. A., Uwaoma, C. O., Anwanane, B. B., & Nwangburuka, K. (2019). Peer group influence on academic performance of undergraduate students in Babcock University, Ogun State. *African Educational Research Journal*, *7*(2), 81–87. https://doi.org/10.30918/aerj.72.19.010

Griffiths, R. (2004). Knowledge production and the research-teaching nexus: The case of the built environment disciplines. *Studies in Higher Education*, *29*(6), 709–726. https://doi.org/10.1080/0307507042000287212

Grob, R., Holmeier, M., & Labudde, P. (2018). A teacher perspective on benefits and challenges of peer-assessment. In O. Finlayson, E. McLoughlin, S. Erduran, & P. Childs (Eds.), *Electronic Proceedings of the ESERA 2017 Conference. Research, practice and collaboration in science education* (pp. 1416–1422). European Science Education Research Association. https://folia.unifr.ch/unifr/documents/312673

Halimah, L., & Sukmayadi, V. (2019). The role of "Jigsaw" method in enhancing Indonesian prospective teachers' pedagogical knowledge and communication skill. *International Journal of Instruction*, *12*(2), 289–304. https://doi.org/10.29333/iji.2019.12219a

Healey, M., Jordan, F., Pell, B., & Short, C. (2010). The research–teaching nexus: A case study of students' awareness, experiences and perceptions of research. *Innovations in Education and Teaching International*, *47*(2), 235–246. https://doi.org/10.1080/14703291003718968

Huber, G. L., & Huber, A. A. (2008). Structuring group interaction to promote thinking and learning during small group learning in high school settings. In *The teacher's role in implementing cooperative learning in the classroom* (pp. 110–131). Springer. https://doi.org/10.1007/978-0-387-70892-8_6

Ivaniš, A., Sambunjak, D., Todić, M. R., Kadmon, M., & Strittmatter-Haubold, V. (2009). The sandwich design of teaching and learning. In D. Bokonjic, T. Steiner, & H.-G. Sonntag (Eds.), *Handbook of teaching and learning in medicine*. B&H Medical Faculties. http://www.bhmed-emanual.org/chapter_1_the_sandwich_design_of_teaching_and_learning

John, K. St., & Briel, L. (2017). Student voice: A growing movement within education that benefits students and teachers. In *Center on Transition* (Issue April). https://centerontransition.org/publications/download.cfm?id=61

Johnson, D. (2017). The role of teachers in motivating students to learn. *BU Journal of Graduate Studies in Education*, *9*(1), 46–49. https://doi.org/10.1080/07303084

Kadmon, M., Strittmatter-Haubold, V., Greifeneder, R., Ehlail, F., & Lammerding-Köppel, M. (2008). The sandwich principle – Introduction to learner-centred teaching/learning methods in medicine. *Zeitschrift Für Evidenz, Fortbildung Und Qualität Im Gesundheitswesen*, *102*(10), 628–633. https://doi.org/10.1016/J.ZEFQ.2008.11.018

Karami, A., & Rezaei, A. (2015). An overview of peer-assessment: The benefits and importance. *Journal for the Study of English Linguistics*, *3*(1), 93–100. https://doi.org/10.5296/jsel.v3i1.7889

Laal, M., & Laal, M. (2012). Collaborative learning: What is it? *Procedia - Social and Behavioral Sciences*, *31*(2012), 491–495. https://doi.org/10.1016/J.SBSPRO.2011.12.092

Lin, M. T. P., & Jain, J. (2018). Reflective practice: An approach to developing self-knowledge. *11th Taylor's Teaching & Learning Conference*, 1–7. https://www.researchgate.net/publication/332409418

Lumpkin, A. (2020). Effective teaching and learning—A five-step process. *Journal of Education and Culture Studies*, *4*(3), 32–43. https://doi.org/10.22158/jecs.v4n3p32

Omar, D. S. N. P., Shahrill, M., & Sajali, M. Z. (2018). The use of peer assessment to improve students' learning of geometry. *European Journal of Social Science Education and Research*, *5*(2), 187–206. https://doi.org/10.26417/ejser.v5i2.p187-206

Rennie Center for Education Research & Policy. (2019). *Student voice: How young people Can shape the future of education*. https://eric.ed.gov/?id=ED594106

Rudd, T., Colligan, F., & Naik, R. (2006). *Futurelab: Learner voice handbook*. HAL open science. https://telearn.archives-ouvertes.fr/hal-00190332

Schunk, D. H. (2012). *Learning Theories: An educational perspective* (6th ed.). Pearson. https://doi.org/10.1007/BF00751323

Topping, K. J. (2009). Peer assessment. *Theory into Practice*, *48*(1), 20–27. https://doi.org/10.1080/00405840802577569

Walkington, H. (2015). *Students as researchers: Supporting undergraduate research in the disciplines in higher education itle*. The Higher Education Academy. https://www.heacademy.ac.uk/system/files/resources/Students as researchers_1.pdf

Wang, J., Li, L., Li, H., Luo, C., Chen, J., Fang, X., Huang, Y., Zhao, Q., Huang, H., Huang, Q., Li, B., & Tang, Q. (2018). Application of sandwich learning in the theory teaching of histology and embryology for first-year medical students. *Creative Education*, *9*(2018), 1637–1647. https://doi.org/10.4236/CE.2018.911118

Weinberger, Y., & Shonfeld, M. (2018). Students' willingness to practice collaborative learning. *Teaching Education*, *31*(2), 127–143. https://doi.org/10.1080/10476210.2018.1508280

Xie, C., Wang, M., & Hu, H. (2018). Effects of constructivist and transmission instructional models on mathematics achievement in mainland China: A meta-analysis. *Frontiers in Psychology*, *9*(Oct), 1–18. https://doi.org/10.3389/FPSYG.2018.01923/BIBTEX

Zhang, Z., & Bayley, J. (2019). Peer learning for university students' learning enrichment: Perspectives of undergraduate students. *Journal of Peer Learning*, *12*(1), 61–74. https://ro.uow.edu.au/ajpl/vol12/iss1/5