Attribution theory in EFL teacher's resistance of using technology

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ABSTRACT

It is now a trend to research the teacher's perspectives of using technology in a language class. However, the reasons why teachers keep perspectives are not well studied. It is known in the view of naive psychology, that what a person regards something matters more than how it actually is. To view success or failure, it is very humane to make excuses or reasons for how it happened. In the case of teacher's reluctance of using technology in a language class, the present study aimed at explaining what could have underlain their resistance to using technology in their language classes, especially from the view of attribution theory. The study applied a qualitative approach using the phenomenology research design. The participants of the study were three high school language teachers from Situbondo, Indonesia. Added to the researcher as the primary research instrument were the interview and field notes. The findings of the study indicate that teachers have personally considered their resistance as something stable and uncontrollable. They believe that they become resistant because they do not have control over their ability as they believe the younger fellows are gifted with the ability to use IT fluently in the classroom. The findings imply that teachers are reluctant to use technology in the class because they fear failure when using technology in the classroom. It suggests that the magnitude of teachers' attribution could determine what they could achieve in their professional development.

1. Introduction

There has been a serious interest in research about teacher's attitude since technology made its way into language classrooms. Since its first debut, technology has successfully assured elements of education to improve language learning and help students maximize learning. Although it is not well recorded, Brown (2006) wrote that technology first came in the 50s and 60s in the form of language laboratory, equipped with tape, radio and even television. Language teachers were encouraged to integrate the tools into their teaching so that students could learn better. Fast forward to the time when computers came through in the 1980s (Brown, 2006), many had noticed that teachers as the front people in education seemed to take a step back.

Studies found teachers become resistant to technology integration in their classes. The studies reveal various possibly contributing causes to teacher's resistance. To the extreme cases, causes arise from teachers themselves, such as being incompetent in technology-related pedagogy, technology illiterate, unsure about changes in teacher-student roles in the classroom, and negative presumption about technology integration in the class. However, these causes are denied by Kamilah & Anugerahwati (2016) through her study. The study revealed that teachers reflected

positive views about technology use in the class and were aware of changes in teacher-student roles in the class; still, they averted using technology in the classroom. Therefore, these causes seemed to answer superficially the question of why teachers resist technology.

To the resistance attitude, many studies attempted to approach it differently. Howard (2013) analyzed teacher's resistance through risk perception analysis. She argues that teachers decided to resist changing because changing in instruction appears risky to them. Reacting to risks, it is common for people to either avert or take them (Fielden & Rico, 2018). In fact, perceiving risk is very much culturally and contextually bound. Take an example, a teacher is pushed by the school principal to use technology in his instruction, and will be rewarded for that, it is likely that he will use the technology. However, if the environment or context in which a teacher works does not support the use of technology, he will remain in his comfort zone and barely change his instruction. The illustration suggests that people's beliefs and attitude can be influenced by his surroundings.

A decade earlier, Zhao & Frank (2003) completed their search for understanding the teacher's attitude using ecological analysis. Computers entering the classroom are compared to zebra mussels, an invading species to the Great Lake. They found three phases of technology uses in the schools. During the process of technology use, the teacher's 'perceived advantage' changes. Teacher modifies his perceived advantage of using technology as he interacts with other teachers, in-service training, and new hardware and software. If the experience is impressively encouraging, the teacher will utilize the technology even better. On the other hand, should the teacher discover discouraging characteristics of the technology when used in the language class, they would leave the technology or become less interested in using it.

Each of the approaches has made fruitful contributions to the knowledge of the teacher's attitude. However, to make it more meaningful to teachers as the frontiers, it is critical to discover the ways to make teachers not resist technology. Although it appears assertive, technology is already among us and still developing. Teachers seem to not have other choices but to use it in the class.

The present study, therefore, aimed to analyze a resistant teacher's perception of integrating technology in the language classroom using the attribution theory. The attribution theory was notably used by Weiner in Williams and Burden (1997). The attributions are more commonly used to identify a person's perception when dealing with achieving something (Gosling, 1994). In this context, teachers are supposed to use technology in the classroom. As it is a sort of achievement, teachers are considered to successfully achieve the goal if they utilize the tool. Otherwise, it is assumed that they failed. This form of failure is also defined as teacher's resistance in this context.

The successful attribution in this context may include but not limited to; 'I am technology literate, I can operate technology fluently to suit my instruction, using technology is easy, my students improve when I use technology,' and so on. While the failure attribution may include, such as 'I am afraid using technology inhibits my instruction, I am technology illiterate, I do not know how to integrate technology to my teaching, my students use technology better than I do,' and so on. Then, these attributions are categorized in the four elements of attribution, namely ability, effort, task difficulty, and luck

As written in Williams and Burden (1997), four focal attribution elements are concluded by Weiner and have been used up to now. They are ability, effort, task difficulty, and luck. These elements are classified into different loci, such as 'locus of causality' and 'locus of stability'. The attributions of a person can be in different loci from another. See Table 1 for the elements and the loci in the attribution theory.

Table 1.   Four Elements and Loci of Attribution Theory

		Locus of Causality	
		Internal	**External**
Locus of Stability	**Stable**	Ability	Task difficulty
	Unstable	Effort	Luck

In addition to the attribution theory, in order to achieve comprehensive understanding of teacher's resistance, the concept of locus of control introduced by Findley and Cooper (1983) can be used. In this concept, a person's attribution can also be classified to controllable and uncontrollable. If an attribution failure is controllable, means it is personally driven. In other words, the person believes that they can personally make an effort to achieve success later. On the other hand, if it is uncontrollable, the person believes that they can do nothing about the failure.

Following the attribution theory is the reattribution training (Hastings & Craske as cited in Williams & Burden, 1997). Its purpose is to alter how people perceive failure so they can influence themselves to achieve success. In this study, the attributions of teacher's resistance will be used as a basis finding to conduct reattribution training.

This paper will describe how the study answers the research question by first describing the urgency and gap in the body of research relating to the teacher's attitude to technology integration, and the question. It is followed by how the study will attempt to answer the question by presenting the research method implemented in the study. The answer to the question will follow by describing the teacher's perception and its analysis viewed from the attribution theory. The conclusion will finally present the implication and suggestion for future research.

2. Research Method

The study aimed to describe the perceptions of teachers who are categorized as resistant. To answer the question, the phenomenological method was used as a research approach (Bloor & Wood, 2006). The purposive sampling was used to gather teachers with resistance attitudes. Three English teachers were the participants of the study, further in this paper they will be addressed by Subject A, B, and C. They are in-service senior high school teachers from Situbondo, Indonesia. All of them have been teaching English more than five years. The length of teaching experience is important because it is assumed that they have more solid identities as teachers. Having solid teacher identities is crucial because identities are found contributing to their decision-making (whether or not to use technology) (Howard, 2013).

The data were gathered using in-depth interviews and field notes. To make sure no data was missed from the interviews, every process of interview was audio-recorded. The interviews were done three times for each participant. The first interview was to build rapport and obtain general overview about their instruction, the second was to gather essential data for the study, and the last was to reconfirm the data and find out if any data were added to the existing ones. The gathered data were classified based on the similarity of its information. The writer analyzed the final data using the attribution theory.

In establishing trustworthiness of the data, the writer conducted member-checks. The writer performed the member-check after analyzing the data. This is to assure that the writer concluded the perception of every participant as it was said.

3. Findings and Discussion

This section will describe the perspectives of every participant in isolation. Following the description is the perception analysis from the view of attribution theory. The section will attempt to disentangle the story behind the teacher's attitude by grouping their reasons into more manageable classes.

3.1. Subject A

Subject A has the most teaching experience of over 30 years, therefore his personal teaching identity was supposed to be firmer than the rest of participants. Starting from his view, he believes that using technology, especially computers, would have been the greatest invention and innovation of all time. The technology miraculously helps teachers and students to do tasks more efficiently, like the use of Office software. Moreover, the Internet is also very helpful for seeking information. He is affirmative that technology is very positive for language instruction.

Despite the positive view of technology use in the classroom, he hardly uses technology in his teaching. He believes that the technology-thing is not meant for him. He argues that being aged is

an inhibitor to learn something new like learning to operate technology, including operating computers, surfing the Internet, and setting up the LCD projector. He confessed that the kinds of technology he could operate very well in the classroom are the CD player, radio, and tape. The subject's attitude towards technology might imply that he is not a technology literate. The ability to operate technology is thought to be external and stable.

Subject A has made a minimum amount of effort to overcome his problem. It is minimum because the subject claims that, so far as he could recall, he has never participated in training in technology-integrated instruction. His teachers of using technology are his son and some of his colleagues. With such minimum effort, the subject realizes that it could not improve his technology skills significantly.

The subject argues that operating technology is technically challenging. He has experienced failure when operating his computer for personal purposes. He describes that he is not familiar with most of the instructions on the computer. Typing on the computer is not a problem, but other tasks are. In his view, there is no such luck when using technology. The failure makes him think that it would get worse if used in the class; which the writer assumes could risk the subject's identity as a teacher in front of his students. Therefore, he finally decides that the technology does not suit his instruction.

3.2. Subject B

Subject B has lesser years of teaching experience. Currently, she is responsible for the language laboratory in the school. The lab is equipped with an LCD projector and a set of audio speakers. She recounts the marked changes and uses of technology to her teaching. Her view is very positive towards technology. Her students become more attracted to the learning material and she could construct more meaningful tasks by including different types of them. Also, she could take the advantage from the Internet for finding contextual examples of language uses in real life communication.

Given that she interacts more with technology in the language lab, she claims that operating technology is not new to her. She usually looks for supplementary materials from the Internet and sets up the projector by herself. Aside from her positive beliefs towards technology and her skills in using technology, she is aware of the dangers of the Internet to her students. She explains further that the Internet can mislead students because some websites contain inappropriate content. This concern makes her limit the use of gadgets in the tasks. Technology is used mostly for the purpose of delivering learning materials, not integrated to student's tasks.

In struggling with technical skills for operating technology, she learns independently. She eagerly learns to be able to use technology. Sometimes she learns from her sons, her colleagues, even her students. She believes that it is her responsibility to improve her teaching skills using technology. Despite her effort, she thinks that she still lacks the technology skills, especially those for maximizing the use of technology for instructions, like designing a stunning presentation and editing audio and video. The ability to use technology is still beyond her control.

One which makes using technology demanding is that technology keeps developing over time. The subject argues that even if she can operate technology well today, she cannot be sure of tomorrow. Today, she still uses technology as substitutes for the conventional teaching, i. e. presentation slides as a substitute for whiteboard, video for old audios, the Internet for books. Added to her belief, she has not seen any significant improvement in her students even though she has used technology often. Her technology integrated instruction may be left behind because the 21st century skills demand beyond only using technology for these purposes but more for encouraging communicative uses, critical-thinking tasks, creative tasks, and collaborative interaction. She succinctly concludes that she might not catch up with the recent technology because it is too demanding, neither will she try.

3.3. Subject C

Subject C has been teaching English for ten years now. Her view on technology in the classroom is positive. From her experiences so far, she has found technology advantageous to be implemented in the class. She mentions that her class becomes more manageable when she uses technology. Additionally, technology could make her class more dynamic. More students are

attracted to learn English when she plays a video. Also, she could show pictures to make her explanation more understandable, and arrange a game inspired from the Internet. She believes that technology can bring better than harm to language teaching.

Subject C is very optimistic about integrating technology in her language class, but she is not confident of her own technology-related skills. She confesses that she still finds trouble when integrating it. For example, when setting up the projector, sometimes she still needs help from her students or the technician in the school. And, when she plays a game she created in her class, sometimes it does not work as she expects, although she has followed every step by step from the Internet. These failures discourage her to make another attempt because she could not understand why it failed.

Subject C has joined several trainings on using technology in the class. The trainings have inspired many activities in her instruction, such as making an interactive use of technology. Still, she thinks that when it comes to practice the skills herself, she fails. Therefore, her effort cannot ensure her ability.

It is implied from her beliefs that using technology is technically difficult. It contains language that cannot be easily understood. With her current skills in integrating technology, she feels adequate and is not ready for new uses of technology because of the unanticipated difficulties of technology.

3.4. Teacher's Resistance: The Attribution Theory

Reading through the perception of teachers about their resistance, the writer found two different schemes from three teachers; the first one is depicted in Table 2 and the other in Table 3. The first scheme is derived from Subject A points of view, while the second one is derived from Subject B and C.

Table 2.   Scheme 1 of Teacher's Resistance

		Locus of Causality	
		Internal	**External**
Locus of Stability	**Stable**	Ability	Task difficulty
	Unstable	Effort	-

Table 3.   Scheme 2 of Teacher's Resistance

		Locus of Causality	
		Internal	**External**
Locus of Stability	**Stable**	Ability	Task difficulty
	Unstable	Effort	

Table 4.   Scheme 1 with Locus of Controllability

		Locus of Causality	
		Internal	**External**
Locus of Stability	**Stable**	Ability	Task difficulty
	Unstable	Effort	

☐ : Controllable

⬭ : Uncontrollable

Table 5. Scheme 2 with Locus of Controllability

		Locus of Causality	
		Internal	**External**
Locus of Stability	**Stable**	Ability	Task difficulty
	Unstable	Effort	

☐ : Controllable

⬭ : Uncontrollable

The two schemes are very much alike. In the two schemes, luck is missing. It is inferred from the data that all subjects agree that luck would hardly contribute to their success in using technology. Failure in using technology in the class is mostly assumed to be a result of the technical difficulty of using it. One of the subjects also believes that technology may bring harm to students; therefore, the subject limits her uses in the class. Such perception is acceptable to the theory because as Weiner in Williams and Burden (1997) states that the attributions are case-bound; they cannot be globally used across cases or phenomena.

The difference from the two schemes lies within the dimension of locus of controllability. Locus of controllability is added to the two common loci; locus of stability and locus of causality, because it could help decide if the attribute can be altered in order to achieve the success. In Scheme 1, Subject A believes that the effort is uncontrollable. Even if it is an internal attribution, he could not decide which effort would be meaningful and helpful. Added to this, the subject thinks that his ability to operate technology is not controllable. Given that his view about technology uses in the class is positive, he thinks that his ability cannot be changed because of his effort. The ability is thought to be the nature of a person, not nurtured (see Table 4 for the dimension of controllability). Such attribution may reflect that teachers have constructed a firm identity which prevents them from taking risks (Wang & Hall, 2018). Believing that it is an external factor which causes the failure in using technology might be assumed as the most logical excuse.

Moreover, in Scheme 2, their effort is considered controllable. Although the effort is internal and unstable, both Subject B and C are aware that they lack the ability of operating technology, thus working hard to improve it. However, when tasks become more challenging, they stop making more effort and remain in the existing ability. From the view, the ability is controllable. Since it is stable, the harder the effort, the better the ability (see Table 5 for the dimension of controllability). It may be common for teachers to have a similar view to understand why their students fail or have low achievement in the language class (Jager & Denessen, 2015). Such a view which probably makes teachers give more tasks to low achieving students, having faith that they will do better when given more challenges. However, when the results are not as they expect, teachers may stop trying.

The two schemes agree that task difficulty is unpredictable, but it continuously advances thus more challenging. Task difficulty in using technology deals not only with the technical matters but also with the pedagogical knowledge of how technology integration can suit the teaching and learning activities.

From the study findings, there are two areas where reattribution training can take place as a follow up of the study. First, because most teachers may believe that they can put greater efforts to improve their technology-related ability, it is advisable that the school give more support to their efforts. The support may include giving training to teachers about using technology appropriately in the language classroom, providing technical support in the school environment, and continuously upgrading their effort. Second, in relation to task difficulty, the upgrading training for teachers can also include what new innovations in technology and how it can be integrated in the classroom.

4. Conclusion

The study found that teacher's resistance is a result of the teacher's complex beliefs about using technology in the classroom. Reacting to failure in using technology appropriately in the classroom, as viewed from the attribution theory, teachers agree that the ability of using technology

for instructional purposes is uncontrollable. However, some react to this issue by putting more effort, while some others give it up. It is implied in the findings that teachers think that using technology requires ability that needs to be improved continuously by an appropriate effort. It is advisable that the findings can be used to ensure schools to conduct trainings as to facilitate teacher's efforts and to inform them about the tasks in technology integration.

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