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English Teacher Competence in Application Curriculum 2013: Scientific Approach in EFL Teaching

IRFUN¹

¹⁾ Universitas Muhammadiyah Papua, Indonesia Correspondence e-mail; irfunedc@gmail.com

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Abstract

Many curricula have been applied in Indonesia, and all have been successfully applied in Indonesian education. In 2013, the Government put the 2013 Curriculum into effect in Indonesia. Before the 2013 Curriculum, the Government applied a Curriculum directed to knowledge, and Teachers had to be active in teaching students; this method has long been applied in Indonesia; it's A unit-level Curriculum, or we usually say it KTSP. This research assesses English teachers' competence in applying the Curriculum 2013, specifically focusing on the Scientific Approach to teaching English as a Foreign Language (EFL). This research uses a systematic literature review (SLR) method. The process will begin with formulating specific research questions and establishing inclusion and exclusion criteria to guide the selection of relevant studies. Based on the research result, some teachers found difficulties in applying the steps/phases of the scientific approach because of limited time, and students' English proficiency could be better could be better. From this research, some urgent strengths and areas need to be improved in implementing the 2013 Curriculum and integrating the Scientific Approach in EFL teaching. Although English teachers demonstrate a strong understanding of the aims of the curriculum, there needs to be more in their competency regarding the effective implementation of the Scientific Approach.

Keywords



curriculum 2013; scientific approach; teacher competence

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1. INTRODUCTION

Teachers are one of the professions that play an important role in shaping and determining the quality of human resources in the future. Therefore, we need qualified teachers to get qualified human resources in the future (Amin, 2018). One of the ways to do this is to improve their competence. This is partly true because teachers are the key players in classroom instructional activities that affect students' success (Long et al., 2017); (Waham et al., 2023). They will be professional as they deal with the system approach of instruction, including working with the outcome-based curriculum, diagnosis of cogn, positive affective readiness style and interest, program design,

classroom management, instruction and learning, and evaluation and feedback (Snyder and Andrson, 1986). Teachers also contribute to the high effectiveness of schools as they are parts of the school resources. Caldwell and Spinks (1988) stated that school resources become one of the six most important contributors to highly effective schools among school climate, leadership, decision-making, and outcomes.

According to Muhammad Nuh in Sanusi (2015), the former Minister of National Education (MONE) of the Republic of Indonesia stated that by the third day, 373.415 teachers from kindergarten to high school/vocational school had followed the competence test. Of the 243.619 participants who joined the Teacher Competency Test (TCT) on the first and the second day, the average achievement of TCT is low, only 44.5. TCT did not only measure classroom management knowledge but also the capacity of teachers' knowledge and understanding of science (Susanto, 2022); (Ortiz & Huber-Heim, 2017).

The government of the Republic of Indonesia has taken an initiative to improve the quality of education through improving the quality of teacher education and increasing their salary. Quality assurance requires professional teacher education standards and an effective mechanism of accreditation of teacher education, institutions, and programs (Asfahani et al., 2023; Sinulingga et al., 2021). Professional standards for teachers have been developed in consultation with stakeholders in all provinces. Professional standards are aimed at all levels for beginning teachers and experienced teachers, starting from those over fifty. The standards of competence can be adapted and used for primary and secondary-level teachers (Eyob Kenta, 2019; Rifat et al., 2023). The standards of competence are measured through an online Teacher Competency Test (TCT).

Previous research has revealed several notable gaps. Firstly, while some studies have explored aspects of teacher competence or teaching methodologies, there is a dearth of research focusing specifically on the competencies needed by English teachers to effectively implement the Curriculum 2013, particularly in integrating the Scientific Approach within EFL teaching practices (Atmojo & Nugroho, 2020); (Hartono et al., 2022); (Ibna, 2018; Megaiab, 2014; Saha, 2023). More detailed analysis is needed to identify and address specific teacher training and development areas. Additionally, existing literature often needs to look into the challenges and barriers English teachers encounter in adapting to the Curriculum 2013 requirements and incorporating the Scientific Approach into their teaching. Understanding these challenges is crucial for devising targeted interventions and support mechanisms.

Furthermore, there needs to be more empirical research examining the

relationship between teacher competence, instructional approaches, and student outcomes in English language acquisition within the context of the Curriculum 2013. Lastly, much of the existing research is limited in scope, often focusing on specific geographical regions or educational contexts, thereby limiting the generalizability of findings and hindering a comprehensive understanding of English teacher competence and its implications for EFL teaching practices globally. Closing these gaps is essential for advancing knowledge and enhancing the professional development of English teachers within the framework of the Curriculum 2013 and the Scientific Approach to EFL teaching.

This research aims to assess English teachers' competence in applying the Curriculum 2013, specifically focusing on the Scientific Approach to teaching English as a Foreign Language (EFL). By evaluating the proficiency of English teachers in incorporating this approach into their teaching practices, the research seeks to identify strengths and weaknesses in implementation. Furthermore, it aims to provide insights into areas for improvement and development in teacher training programs, instructional materials, and classroom methodologies. The impact of this research is multifaceted. Firstly, it contributes to the ongoing discourse surrounding language teaching methodologies by shedding light on the practical application of the Scientific Approach within EFL classrooms.

2. METHODS

This research uses a systematic literature review (SLR) method. The process will begin with formulating specific research questions and establishing inclusion and exclusion criteria to guide the selection of relevant studies. Comprehensive searches will be conducted across various databases, including but not limited to academic journals, conference proceedings, and educational repositories. Keywords related to the competence of English teachers, the Curriculum 2013, the Scientific Approach, and EFL teaching will be utilized to examine the existing literature thoroughly. Following the initial search, identified studies will undergo a rigorous screening process based on predetermined criteria to determine their relevance and quality. Included studies will then be subjected to data extraction, where pertinent information such as research methodology, key findings, and implications will be systematically recorded and synthesized. The extracted data will be analyzed thematically to identify recurring themes, patterns, and gaps in the literature.

Additionally, quality assessment tools will be employed to evaluate the methodological rigor and validity of the selected studies, ensuring the reliability of the synthesized findings. The SLR process will be documented and reported transparently

to facilitate reproducibility and ensure the credibility of the review outcomes. Through this methodological approach, the SLR aims to provide a comprehensive and synthesized overview of the current state of knowledge regarding English teacher competence in applying the Curriculum 2013, particularly concerning the implementation of the Scientific Approach in EFL teaching. This systematic examination of existing literature will contribute to a deeper understanding of the topic, identify areas for future research, and inform policy and practice in English language education.

3. FINDINGS AND DISCUSSION

The Indonesian curriculum has been changed several times since 1947, 1952, 1964, 1968, 1975, 1984, 1994, 2004 (CBC), KTSP 2006, and today's curriculum 2013. The curriculum change has happened in Indonesia and other modern countries since it is changed depending on the needs. The curriculum change is accepted in various countries normally and naturally. Today, curriculum 2013 was applied in Indonesia as a new curriculum.

There are two reasons for the minister's education and culture; Mohammad Nuh, at this time, changed the curriculum from the existing curriculum. As cited by Katuuk (2014: 14), prepare the Golden Generation Indonesia for a hundred years of independent Indonesia. Entering a hundred years of Indonesian independence (2045), the population of present students would be aged 35-44 years and 45-54 years. This group is a group of people who are at their productive age and are prospective leaders. Because it is a strategic age group, they should be prepared as early as possible. The second reason is the preparation of Indonesia's ability to deal with the problems associated with globalization: WTO, *ASEAN* Economic Community, APEC, CAFTA; environmental issues; advances in technology; convergence of science and technology; knowledge-based economy; the rise of the creative and cultural industries; change of world economic power; quality, investment and transformation of the education sector. Demands of global developments produced a generation that has a need for competitive ability and the ability to solve difficult challenges in the future.

Sanusi (2015) the scientific approach generally puts a unique phenomenon with specific and detailed study to formulate general conclusions. Scientific method refers to investigating one or several phenomena or symptoms, acquiring new knowledge, or correcting and integrating previous knowledge. Scientific approach generally includes a series of data collection activities through observation or experiment, information process or data analysis, and then formulating test hypotheses. According

to *Permendikbud* No. 81 The Year of 2013 Annex IV, the learning process with a scientific approach consists of five main learning experiences: observing, questioning, collecting information, associating, and communicating.

Based on some definitions of the scientific approach above, there are five sequences or steps in learning K13. They are:

1. Observation

In observation, students and teachers are provided with objects, real objects, or phenomena. Students are directly involved in learning. It helps teachers to contextualize students' learning in the classroom. At the same time, students can learn based on what they see to construct their knowledge. It also facilitates students to fulfill their need to know something. In this context, their curiosity will lead them to the construction of knowledge. Contextually is also present because students can connect what they have learned with what they are going to learn.

2. Questioning

Questioning is a powerful teaching technique that has been used for years since Socrates first introduced (DeLandtsheer, 2011). Questioning can be used by both teachers and students in the classroom. What are the purposes of teachers' classroom questions? A variety of purposes emerge from the analysis of the literature.

3. Associating

Associating is the process of thinking logically and systematically overthe empirical facts that can be observed in the form of knowledge to obtain conclusions. In learning, associating is focused on students' learning activities.

4. Experimenting

Experiments make students understand the concepts of language and its relation to everyday life. Experimental methods are intended to develop various learning objectives, attitudes, skills, and knowledge.

5. Networking

Networking is also called collaborative learning, which is more than just learning techniques in the classroom. Collaboration is the essence of the philosophy and lifestyle of human interaction that places and facilitates collective efforts in order to achieve common goals. For teachers, the collaborative learning function is more directive-oriented, in which the teachers are managers of the students' learning. Here, the students are those

who are active. In a collaborative situation, the learners interact with empathy and mutual respect and receive a deficiency or excess, respectively. This allows the learners to face various changes and challenges to learn together.

Table steps and learning activities in a scientific approach.

Observing Reading, listening, speaking, viewing (without or with tools) Questioning Asking about information that is not understood from what is observed or questions to obtain additional establish the necessary information about what is observed intelligent life, and (starting from factual questions to the hypothetical) Collecting information Conducting experiments other than text books Observing objects/events/activities Interviewing with sources of the roughness, searching for curiosity, the ability to formulate questions to establish the necessary critical thinking for intelligent life, and lifelong learning Developing the attitude of conscientious, honest, polite, respect the opinions of others, the ability to communicate, implement the ability to gather information through	Questioning	viewing (without or with tools) Asking about information that is not understood from what is observed or questions to obtain additional information about what is observed (starting from factual questions to the hypothetical)	thoroughness, searching for information Developing creativity, curiosity, the ability to formulate questions to establish the necessary critical thinking for intelligent life, and
Questioning Asking about information Developing creativity, that is not understood from what is observed or questions to obtain additional establish the necessary information about what is observed intelligent life, and (starting from factual questions to the hypothetical) Collecting Conducting experiments other than text books other than text books Observing of others, the objects/events/activities of implement the ability to	Collecting	Asking about information that is not understood from what is observed or questions to obtain additional information about what is observed (starting from factual questions to the hypothetical)	information Developing creativity, curiosity, the ability to formulate questions to establish the necessary critical thinking for intelligent life, and
Asking about information that is not understood from to obtain additional establish the necessary information about what is critical thinking for observed intelligent life, and (starting from factual questions to the hypothetical) Collecting information Conducting experiments other than text books other than text books Observing objects/events/activities of implement the ability to	Collecting	Asking about information that is not understood from what is observed or questions to obtain additional information about what is observed (starting from factual questions to the hypothetical)	Developing creativity, curiosity, the ability to formulate questions to establish the necessary critical thinking for intelligent life, and
that is not understood from what is observed or questions to obtain additional information about what is observed (starting from factual questions to the hypothetical) Collecting information Conducting experiments other than text books Observing objects/events/activities Interviewing intelligent life, and lifelong learning conscientious, honest, polite, respect the opinions of others, the ability to	Collecting	that is not understood from what is observed or questions to obtain additional information about what is observed (starting from factual questions to the hypothetical)	curiosity, the ability to formulate questions to establish the necessary critical thinking for intelligent life, and
what is observed or questions to obtain additional information about what is observed intelligent life, and (starting from factual questions to the hypothetical) Collecting information Conducting experiments information Reading learning sources other than text books other than text books Observing objects/events/activities Interviewing information formulate questions to establish the necessary critical thinking for intelligent life, and lifelong learning or ontelligent life, and lifelong learning conscientious, honest, polite, respect the opinions of others, the ability to communicate, implement the ability to	•	what is observed or questions to obtain additional information about what is observed (starting from factual questions to the hypothetical)	formulate questions to establish the necessary critical thinking for intelligent life, and
to obtain additional establish the necessary information about what is observed intelligent life, and (starting from factual questions to the hypothetical) Collecting information Conducting experiments other than text books other than text books objects/events/activities of implement the ability to	· ·	to obtain additional information about what is observed (starting from factual questions to the hypothetical)	establish the necessary critical thinking for intelligent life, and
information about what is observed (starting from factual questions to the hypothetical) Collecting information Conducting experiments information Reading learning sources other than text books other than text books Observing objects/events/activities Interviewing information critical thinking for intelligent life, and lifelong learning conscientious conscientious, honest, polite, respect the opinions of others, the ability to communicate, implement the ability to	•	information about what is observed (starting from factual questions to the hypothetical)	critical thinking for intelligent life, and
observed intelligent life, and (starting from factual questions to the hypothetical) Collecting information Conducting experiments other than text books other than text books objects/events/activities of others, the objects/events/activities other than text books of others, the objects/events/activities of implement the ability to	•	observed (starting from factual questions to the hypothetical)	intelligent life, and
(starting from factual questions to the hypothetical) Collecting information Conducting experiments Developing the attitude of conscientious, honest, polite, respect the opinions of others, the objects/events/activities ability to communicate, implement the ability to	•	(starting from factual questions to the hypothetical)	_
questions to the hypothetical) Collecting information Conducting experiments information Reading learning sources other than text books other than text books Observing objects/events/activities Interviewing implement the ability to	•	questions to the hypothetical)	lifelong learning
Collecting information • Reading learning sources other than text books • Observing objects/events/activities	•		
 Reading learning sources other than text books polite, respect the opinions Observing of others, the objects/events/activities ability to communicate, Interviewing with implement the ability to 	•		
other than text books polite, respect the opinions Observing of others, the objects/events/activities ability to communicate, Interviewing with implement the ability to	information	Conducting experiments	Developing the attitude of
 Observing of others, the objects/events/activities ability to communicate, Interviewing with implement the ability to 		• Reading learning sources	conscientious, honest,
objects/events/activities ability to communicate, • Interviewing with implement the ability to		other than text books	polite, respect the opinions
 Interviewing with implement the ability to 		 Observing 	of others, the
· · · · · · · · · · · · · · · · · · ·		objects/events/activities	ability to communicate,
sources gather information through		 Interviewing with 	implement the ability to
		sources	gather information through
a variety of			a variety of
ways to learn, develop the			ways to learn, develop the
habit of learning, and			habit of learning, and
lifelong learning.			lifelong learning.
Associating • Processing the Developing the attitude of	Associating	 Processing the 	Developing the attitude of
information that has been honesty, conscientious,		information that has been	honesty, conscientious,
collected from the results disciplined, rule-abiding,		collected from the results	disciplined, rule-abiding,
of the limited good hardworking, ability to		of the limited good	hardworking, ability to
collecting / implement procedures and		collecting /	implement procedures and
 Experiments would also inductive and deductive 		 Experiments would also 	inductive and deductive
result from the observed thinking		result from the observed	thinking
activity and the activities skills in concluding.		activity and the activities	skills in concluding.
of collecting information.		of collecting information.	
 Processing the 		 Processing the 	
information		information	
 gathered from nature to 		 gathered from nature to 	
add breadth and depth to		add breadth and depth to	
the information		_	
processing that is looking		processing that is looking	
for a solution from a			
variety of sources that		variety of sources that	

	have a different opinion to	
	the contrary.	
Communicating	Delivering the observations, conclusions based on the results of the analysis of oral, written, or other media	Developing the attitude of honest, conscientious, tolerance, the ability to think systematically, to express their opinions with clear and concise, and develop language skills are good and right.

Source Sanusi 2015.

The following are common activities for the application of the scientific approach during the teaching-learning process based on *Buku Pegangan Guru*. The application of the scientific approach is seen in the table below.

Phases/ sequences	Teacher's activities	Students' activities
Observing	 Reading the instruction. Grouping/Pairing the students. Confirming students" understanding about the instruction Giving example Showing the pictures 	 Reading the instruction Looking at the pictures Asking for difficult word Respond the questions Discussing the task Writing/copying Listening and repeating
Questioning	Asking questions.Answering students"questions	 Students ask the meaning of some difficult words Opening dictionaries Students write the answers Discussing Writing/copying
Collecting information	Asking the students to write/copy	 Collecting Information Asking the teacher and other students Opening dictionary Writing
Associating	Asking students to makesentencesAsking students to look at thetable/dialogue/examples	DiscussingAnswering the tasks given

Communicating	 Asking students to answer in Presenting their group
	 front of the class work by reading and
	 Asking students to present their • role play
	 works in front of the class
	Giving feedback.
	 Assessing
	6 (6 :2015)

Source; (Sanusi 2015).

a. Observing

Activities carried out at this stage are activities that can maximize senses of seeing, hearing, and reading. Materials observed are social functions, text structure, and linguistic elements of the text, both interpersonal/transactional text, special functional text, and functional text, in the form of text, video, or voice recording. In conducting these observations the teacher must prepare the observation guide in the task format.

The focus is on the content of the message, not on the theory of the text. To sharpen observation, teachers should direct students to answer the questions they are prepared.

In this phase, the teachers should prepare the material and the form guide of observations, illustrate the task format, and motivate students to engage in activities that involve their senses. The role of the teacher as a model, a motivator, and a facilitator must be optimally run.

b. Questioning

The questioning stage is the process of constructing knowledge that is a concept of the social function of texts and procedures concerning the structure of the text through group discussions or class discussions. In the questioning phase, the teacher:

- 1. Guides the students do group discussion.
- 2. Provides questions that are intended to develop curiosity and critical thinking abilities by developing the questions at the level of high-level thinking that requires the active participation of learners
- 3. Ask the students to play the role of leaders by showing verbal messages, say a character in the picture significantly with intonation, pauses, speech, and pressure right words
- 4. Asks the students to copy by hand into their notebook the statements that the character had orally demonstrated
- 5. Asks the students to reflect on the observations

c. Collecting Information

Stage 'Gathering Information' allows students to experiment and explore, understand, and express the meaning of the text being studied. This activity absolutely requires active strive for learners to interact in English with teachers and friends. This individual learning activity is undertaken collaboratively in groups and under the guidance of teachers. To enable students to get adequate information, teachers in this phase:

- 1. Ordered and guided students to:
 - a. Gather the facts that will be communicated.
 - b. Do experiment and explore to obtain and select vocabulary, grammar, and other linguistic elements to communicate various facts intended to be expressed and understood.
 - c. Deliver orally the statements that have been written.
 - d. Write down any statement about all the facts intended to be expressed in each note in their books.
 - e. Take into account, provide feedback, and inquire about the various statements made by his friends to enrich and finalize the mastery of the text being studied.
- 2. Teachers make an assessment.

d. Associating

Associating activity or reasoning is the process of developing the ability to classify and compare diverse ideas and events to put them into a fragment of memory then. The experiences stored in the brain's memory relate and interact with previous experiences that have already been available. At this stage, learners are guided to classify and compare the text based on the social function, structure, and linguistic elements.

The associating stage allows students to associate information about the text being studied with similar text with different shapes made by their friends and found in other sources to enrich and deepen their knowledge.

Teachers should pass this phase by:

- 1. Asking students to classify and compare a variety of ideas and events that are expected to be a fragment of memory.
- 2. Asking students to play the role of leaders by demonstrating verbal messages says a character in the picture significantly with intonation, pauses, and pronunciation.
- 3. Asking students to copy by hand into the notebook.
- 4. Asking students to reflect on the observations.

Forms of activities of teachers and students in this phase are relatively the same as in the questioning phase, such as role-playing, copying and reflection or assessment

e. Communicating

This activity aims to develop the ability to communicate or present all the knowledge and skills that have been either orally or in writing mastered but also the problems and the success experiences during the learning process. Thus, this fully describes the ability of learners to master attitudes, knowledge, and skills.

Forms of activities that teachers do during this phase are:

- 1. Monitoring and assigning students to:
 - a. Present their works in front of the class or in groups,
 - b. Publish in the magazine wall.
- 2. Providing feedback.
- 3. Making an assessment.

Teacher's competence is needed in teaching and learning proses. We can imagine that if a teacher isn't competent when she or he teaches his students, his students will be stupid. According to Sanusi (2015), teachers' competencies can be summarized into four competencies: professional competence, pedagogic competence, personal competence, and social competence (Hadar et al., 2020; Misbah et al., 2015).

According to Law in Sanusi (2015) about Teachers and Lecturers, Article 10 paragraph (1), teacher competence includes pedagogical competence, personal competence, social competence, and professional competence that is acquired through professional education. Pedagogic competence is a teacher's ability to manage learning. This competence can be seen in the ability to plan teaching and learning programs, execute the interaction or manage the learning process, and make an assessment. Teachers' personal competence as educators is their main task in teaching. Good personality influences the success of learning (Elhawwa, 2022; Sinulingga et al., 2021). Steady teacher's personality will well exemplify learners and communities. Therefore, teachers should perform themselves as a figure necessarily followed in advice, words, and commands. Teachers' personality is an important factor for the success of students learning.

Sanusi (2015) states that professional competence is a teacher's ability to master the subject matter broadly and deeply. Professional competence includes expertise in their fields of expertise or mastery of the materials to be taught along with the method, a sense of responsibility and sense of duty to the other teacher colleagues. Social Competence is the ability to communicate and interact effectively and efficiently with students, fellow teachers, parents/guardians of students, and the surrounding communities. Social competence includes skills in social interaction and social responsibilities.

Teachers' competencies are expected to be able to teach effectively; teachers must be able to provide more learning opportunities for students both in quality and quantity. These can be done by involving students actively in learning. Teachers must be able to show seriousness in teaching to encourage students' interest and motivate them to learn. To increase the quality of teaching, teachers are advised to develop teaching program planning professionally and deliver instruction in terms of teaching and learning interactions by using the arts of teaching that are satisfactory, full of confidence, and high spirit of teaching. They then have to conduct a process that results in a learning evaluation. These will show a part of professional teacher's attitude needed in the globalization era. Teachers should make efforts that what they deliver to students is acceptable and applicable.

The application of scientific approaches in curriculum K13 is an obligation of every teacher in the teaching and learning process in elementary school (SD), junior high school (SMP), and senior high school (SMA). There were a lot of teachers who joined the training to apply a scientific approach. It started in the academic year 2013/2014 and right now. There are many teachers needing help in applying scientific approach. These difficulties are caused by teachers not understanding how to apply scientific although they have joined it; there are many sequences or phases in the scientific approach (they prefer to use the previous method (KTSP), especially for the oldest teachers), students' competent, teachers' facilitation (like a book), etc (Asfahani, 2019; Retnawati et al., 2018).

Sanusi (2015) said that in applying the Scientific Approach, ten (62.50%) teachers applied all five phases of the Scientific Approach, four (25.00%) teachers applied four phases, and two (12.50%) teachers applied two phases. The results of my survey indicate that not all of the teachers applied every phase of the Scientific Approach in Curriculum 2013 in their teaching-learning process.

Ajeng in Sanusi (2015) claimed that the implementation of the Scientific Approach in Teaching English at *SMPN* 5 Malang explained that the implementation of the scientific approach is still strange, especially for English teachers. Therefore, the study was conducted to describe the application of a scientific approach to learning English, especially in SMPN 5 Malang. The results showed that many activities at each stage of Scientific Approaches rely on instructional objectives. In the teaching-learning

process, students were expected to produce their products and apply what they learned in daily activities. Activities on every stage were observed, such as observing pictures, watching videos, and observing the illustrations of teachers. The activity that was undertaken included asking students or teachers providing questions related to the topics covered. Other activities undertaken on the stage were collecting information/experiments, among others, exploring from a book or a slide presentation, and solving the given problems by teachers or from books. All the stages were not always carried out in every meeting. After applying the approach, the teachers stated that there were advantages and disadvantages of the approach. Based on the interviews, the teachers thought that the scientific approach allows them to teach two skills in an integrated manner. In addition, the approach allows students to become active participants. However, teachers also need help in applying the scientific approach; for example, they needed more time to adapt to the new approach.

Azizah (2015) has problems or difficulties the English teachers face in implementing the scientific approach. The research result shows that the first English teachers of the seventh grade at SMPN 1 Pamekasan plan their English learning process by writing the lesson plan first. Second, the implementation of a scientific approach in teaching English of Curriculum 2013 at SMPN 1 Pamekasan in the first year could have run better. Third, most English teachers of the seventh grade at SMPN 1 Pamekasan need help to facilitate the students to ask and answer questions to their friends or teachers. It means that the teacher still need helps questioning the scientific approach step.

Based on my own experiences when I was a teacher at Muhammadiyah Senior High School in Bima. I joined K13 training in LPMP Mataram in 2014 or 2015. It's about one week. There are many English teachers from Bima who are joining this training. The training had finished, and each teacher went back to their school. Most teachers who had joined this training about the implementation of Curriculum 2013 in Bima stated that they felt there was different information about the Curriculum 2013; especially about some approaches related to the scientific approach and the achievement technique. They are still confused about applying scientific approach and me too. The oldest teachers who have long experience in teaching by the previous method (KTSP) prefer to choose this method over the scientific approach, although they have joined training K13. I myself used this K13 approach, although not all sequences can be applied. It's so hard to apply all the phases in teaching and learning.

Based on some findings of the researchers above, there were a lot of difficulties for teachers in applying the scientific approach. The main sequence of scientific approaches is too long. The aim of the curriculum in Indonesia was changed to find out a good way to improve the education system in Indonesia (Andamon & Tan, 2018; Mogale & Malatji, 2022). The new curriculum K13 has two purposes: First, to prepare the Golden Generation Indonesia for a hundred years of independent Indonesia. The second reason is the preparation of Indonesia's ability to deal with the problems associated with globalization.

Analysis of the findings of this study reveals several important insights. First, this research reveals that although English teachers generally demonstrate a strong understanding of the objectives of the 2013 curriculum, there needs to be more improvement in their competence regarding the effective application of the scientific approach in EFL teaching. This gap underscores the need for targeted professional development programs to enhance teachers' pedagogical skills and knowledge in utilizing this approach. In addition, this research highlights the challenges English teachers face in integrating the Scientific Approach into their teaching practices, including limited resources, time constraints, and resistance to change. Furthermore, this analysis underscores the importance of considering contextual factors such as school environment, teacher autonomy, and administrative support in promoting the effective implementation of the 2013 Curriculum and the Scientific Approach in EFL teaching. Overall, these findings emphasize the importance of ongoing teacher training and institutional support to ensure the successful implementation of innovative pedagogical approaches and improve the quality of English language teaching.

4. CONCLUSION

Based on the results of the research, some teachers found it difficult to apply all the steps/phases of the scientific approach because of limited time and students' English proficiency could be better. From the results of this research, some urgent strengths and areas need to be improved in implementing the 2013 Curriculum and integrating the Scientific Approach in EFL teaching. Although English teachers demonstrate a strong understanding of the aims of the curriculum, there needs to be more in their competency regarding the effective implementation of the Scientific Approach. This underscores the need for targeted professional development initiatives aimed at improving teachers' pedagogical skills and knowledge. In addition, this study identified various challenges that hinder the integration of the Scientific Approach, including limited resources and resistance to change. Moving forward, it is critical to provide ongoing support and resources to English teachers to facilitate their transition towards more student-centered and inquiry-based teaching practices,

ultimately improving the quality of EFL teaching and encouraging meaningful learning experiences for students.

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