E-ISSN: 2622-2213 P-ISSN: 2622-9323

TEACHERS' REPORTED BELIEFS ABOUT TEACHING, KNOWLEDGE, AND STUDENT'S ABILITY: CASE STUDIES OF FOUR SENIOR HIGH SCHOOL TEACHERS IN PALEMBANG, SOUTH-SUMATERA, INDONESIA

Hanni Yukamana Universitas PGRI Palembang

E-mail: yukamana1975@gmail.com@univpgri-palembang.ac.id

ABSTRACT

This study aimed to explore teachers' beliefs about teaching, knowledge (epistemic beliefs), and student's ability. This was the first part of the study investigated the role of teachers' beliefs in the implementation of curriculum reform in the Indonesian education system context. This study looked specifically into three kinds of teachers' beliefs which were essential in the preparation of teaching in the context of policy reform. The investigation was approached through multiple case study methodology by selecting four senior high school teachers from different public schools. Data were gathered from interviews. The result revealed that four participating teachers shared similar views about the nature of knowledge and students' abilities. Nevertheless, beliefs about teaching were varied among individual participants. Two of the four teacher participants believed in student-centered instructional models, which were categorized into teaching beliefs that supported curriculum reform. Nevertheless, the other two participating teachers' self-reported beliefs about teaching were situated between student-centered instructional learning and teacher-centered instructional learning models. They seemed to value both instructional learning models. Their teaching beliefs about teaching could not be categorized into beliefs that supported or inhibited the reform.

Keywords: Teachers' beliefs, epistemic beliefs, curriculum reform

1. INTRODUCTION

Accepted :

Published :

10 December 2023

10 January 2024

Hanni Yukamana

i-palembang.ac.id

Corresponding Author:

Email Corresponding:

vukamana1975@gmail.com@univpgr

A curriculum reform initiative aims not only to set up a new policy but to transform the culture of educational contexts. Fullan (2001) stated that "reform is not just putting into place the latest policy. Reformation means changing the culture of the classrooms, the schools and the districts, the universities, and so on" (p. 7). If the reformed curriculum is not aligned with the teachers who use the curriculum in their classroom, the reform is not feasible to be implemented. Fullan (2001) further suggested that change can only be accomplished if a shared meaning of change and constant interaction exists between all parties involved in the implementation process.

Teachers implement curriculum reform based on their personal curriculum-living experiences with a particular group in a specific environment (Craig, 2006). Thus,

Connelly and Clandinin (1988) argued that curriculum development and curriculum planning should consider fundamental questions about teacher thinking and teacher doing. Consequently, the success of both curriculum development planning and its implementation strongly depends on teacher practical knowledge, which includes beliefs, values, and motives.

Teachers' beliefs have a significant role in the implementation of a curriculum reform 1991; (Cronin-Jones, Eisenbach, 2012: Roehrig & Kruse, 2005; Roehrig et al., 2007; Zhang & Liu, 2014). Teachers' beliefs appear to both shape and hinder their interaction with reform because these beliefs determine how they define their work in teaching (Nespor, 1987). Teachers' beliefs also affect teachers' perceptions and judgments, which shape their behavior in the classroom (Pajares, 1992). Furthermore, teachers typically adopt a reform if their beliefs match the assumptions provided by the mandated change. If teachers' beliefs do not correspond to the philosophical stance of reform, teachers may not implement the curriculum in their classrooms as intended by the reform (Cronin-Jones, 1991).

Teachers' beliefs influence practice (Calderhead, 1996); Pajares, 1992; Richardson, 1996). Nespor (1987) argued that teachers' beliefs influence teachers' practices because those beliefs determine how they define their work in teaching. Nespor stated that "teachers' beliefs play a major role in defining teaching tasks and organizing the knowledge and information relevant to those tasks" (p. 324). Similarly, Pajares (1992) noted that teachers' beliefs affect teachers' perceptions and judgments, which shape their behavior in a classroom. Therefore, understanding the structure of teachers' beliefs is vital for teachers' professional preparation and teaching practice.

Several research have explored the relationship between teachers' beliefs and teaching practices. For instance, a study with 481 elementary teachers investigated the relationship among content knowledge, attitudes, beliefs, and practices found that teachers' beliefs have the most potent effects on teachers' practice (Wilkins, 2008). Notably, teachers who believed in the effectiveness of inquiry-based instructions would use this method on a daily basis. Similarly, Song and Looi (2012) suggested that teachers with different beliefs led to different practices, which in turn contributed to different students' learning processes and outcomes. Also, a case study conducted with four Australian primary science teachers (Fitzgerald et al., 2013) found that teachers' beliefs influence how and why they teach science in the way they do. As has been noted, teachers' beliefs have been documented to have a significant influence on teacher practice. The beliefs that teachers hold may guide the way they approach their teaching tasks, such as the choice of instructional design, learning method, and student outcomes.

In turn, teachers' classroom practices may influence teachers' beliefs. Java et al (2018), teachers may develop their existing beliefs after having experience performing certain practices exposed to them. Buehl and Beck (2015) argued: " teachers' beliefs are shaped by engaging in specific actions and practices" (p. 69). Teachers' teaching practices may serve as sources of experience that can develop teachers' existing beliefs. For instance, a study which was approached through a reflection methodology (Doody & Connor, 2012) revealed a change of beliefs experienced by a pre-service teacher after completing a teaching practice. This teacher, who initially did not have strong support toward inclusive education after working with disabled students for ten weeks, admitted that the experience changed his beliefs about intellectual disability. Presumably, through a self-reflection of the classroom experience engaged with disabled students, this teacher developed the belief that inclusive education may promote desirable outcomes for students with a disability. The study findings confirmed that one internal source of experience that may develop beliefs is teachers' self-reflection (Buehl & Fives, 2009) on their teaching experiences.

Moreover, Jaya et al (2023), teaching practice may influence teachers' personal views on classroom management. Yilmaz and Cavas' (2008) study investigating the effect of teaching practice on pre-service elementary teachers' science teaching efficacy and classroom management beliefs indicated that pre-service teachers' management beliefs increase after pre-service teachers doing a practicum teaching. Apparently, the educational experience during the teaching practice affects teachers' attitudes and views towards classroom management. This study has demonstrated that personal views on teaching practices (Abdullah & Majid, 2013) have developed pre-service teachers' beliefs on classroom management.

Other studies' findings found that the utilization of the inquiry method on an extensive inquiry-based field experience enhanced pre-service elementary student teachers' science teaching capability beliefs (Bhattacharyya et al.. 2009) and the participation in а year-long inquiry professional development project changed chemistry teachers' beliefs about inquiry teaching and learning (Rusthon et al., 2011). Apparently, teachers' lived experience, collaborative and interactive with others, and vicarious experience (observing others) as of current and practicing teachers (Abdulllah & Majid, 2013; Buehl & Fives, 2009; Levin & He, 2008) are the sources of experiences that developed teachers' existing beliefs. Beliefs can be defined as "an individual's judgment of the truth or falsity of a proposition" (Pajares, 1992, p. 316), or "the conviction that something is true" (Murrel & Foster, 2003, p. 48). "Beliefs have enough personal validity and credibility to guide behavior and thought" (Fives & Buehl, 2016, p. 115). Thus, the beliefs teachers that hold are their

representation of reality or what they believe to be true concerning their teaching practice with or without supporting evidence. The studies discussed above portray the reciprocal relationship between teachers' beliefs and practice. Beliefs influence practice and practice also influence beliefs. However, according to Buehl and Beck (2015), the degree of the relationship between teachers' beliefs and practice may vary across individuals, contexts, and the type of beliefs and practices being investigated.

This study aimed to explore four senior high school teachers' beliefs about teaching, knowledge (epistemic beliefs), and student's ability. This was the first part of the study investigated the role of teachers' beliefs in the implementation of curriculum reform in the Indonesian education system context. This study looked specifically into three kinds of teachers' beliefs which were essential in the preparation of teaching in the context of policy reform discussed by Fives and Buehl (2016): (1) Beliefs about teaching, (2) Beliefs about knowledge (epistemic beliefs), (3) Beliefs about students' abilities.

2. METHODS

For this study, a multiple case study design was preferred over a single case study design because the design offered contrasting situations that might strengthen the findings for a theoretical replication compared to only a single-case study (Yin, 2018). According to Bartlett and Vavrus (2017), "the goal of comparative case study research is to develop a thorough understanding of the particular at each scale and to analyze how these understandings produce similar and different interpretations of the policy, problem, or phenomenon under study" (p. 41). This methodology allowed the researcher to gain multiple understandings of the phenomenon being studied. The research design below describes the overview of the context of the study, the population and sample, and the summary of data collection methods and data analysis.

Context of the Study

Indonesia, located in Southeast Asia, is the world's fourth most populous country in the world with over 261 million people. It has 34 provinces. Palembang, which is the capital of South Sumatera province, is the ninth populous province with 1,573,898 people. Twenty two public senior high schools are located in the city with approximately 1,183 teachers and 22,917 students (The Indonesian Ministry of Education and Culture, 2018). The implementation of curriculum reform in Palembang has been conducted gradually since 2013. Since the academic year of 2016/2017, the 22 public senior high schools located in Palembang have already adopted the reformed curriculum. The study took place in senior high school teachers' classrooms in public schools across the region. Public schools are more representative than private schools because all public schools have practiced the reformed curriculum.

Population and Sample

The population of the study was public senior high school teachers in Palembang. There are 22 public senior high schools in Palembang with 1,183 teachers. However, the study used purposive sampling. That is, four teachers from different public schools were selected as cases. The criteria to choose teachers focused on teachers who received teaching certification, participated in in-service training and other professional development programs for the reform implementation as well as had experience working with the new curriculum in their classrooms.

Moreover, three criteria followed for the selection of high school: school location (urban and suburban area), school accreditation predicate (a, b, or c), and students' socioeconomic background. The selection of four participating schools was approved by school authorities in South Sumatera region. Out of the three criteria, school location and accreditation criteria were fulfilled. The third criterion, students' socio-economic background, was not met due to the unavailability of data provided in schools.

Upon receiving a letter of approval from the school authorities of the South-Sumatera region, I visited schools and distributed recruitment flyers to invite teachers to participate in the study. Two teachers expressed interest in participating. The other two teachers were selected by the school principals. Four teachers, three females, and one male teacher were recruited to participate in the study. They indicated the acceptance of the invitation by signing the informed consent approved by the Institutional Review of Board (IRB) of the United States of America. Another criterion for inclusion in the study was permission from participants' school principals to allow their schools to be the site of the research study. However, in Indonesia, the approval to research in schools is not from school principals but the education authorities in the region. I received a letter of approval from the education authorities of South Sumatera region.

Instrument

Research question was answered by gathering data from the beliefs interview. The interview was designed to develop an understanding of teacher participants' beliefs about teaching, knowledge, and students' abilities. The design of the interview questions was guided by the theoretical framework of the study discussed by Fives and Buehl (2016). The interview was audiotaped and transcribed. It was conducted using the Indonesian interview protocol. The interview protocol was first developed in English. Upon the approval, I translated the protocol into Bahasa Indonesia and asked an Indonesian colleague to translate it back to English for consistency in meaning.

Data Analysis

Data analysis was conducted with qualitative data. Audio recordings of interviews must be processed before they are available for analysis. According to Miles,

Huberman, and Saldana, (2014) qualitative data analysis consist of three categories of activities namely (a) data condensation which refers to the process of selecting, focusing, simplifying, abstracting, and transforming the raw data; (b) data display that is an organized assembly of information from the raw data that allows conclusion drawing and action; and (c) conclusion drawing/verification which is the meaning emerging from the data. I examined teachers' interview data using qualitative content analysis (Grbich, 2013; Saldana, 2016; Schreier, 2012). The content of teachers' interview responses was coded and classified into categories of beliefs derived from the framework of the study.

Table 1

Three Categories of Teachers' Beliefs that Support or Inhibit the Curriculum Reform Implementation

Beliefs about	• Student-centered
teaching	instruction
	(constructivist
	model) -Support
	(S)
	• Teacher-centered
	instruction
	(transmission
	model)- Inhibit
	(I)
Beliefs about	• The certainty of
knowledge	knowledge
	(unchanging (I)
	/fluid (S))
	• The simplicity of
	knowledge
	(simple (I)
	/complex (S))
	• Source of
	knowledge
	(reliance on

	authority(I)
	/constructed by
	oneself (S))
	• Justification of
	knowledge
	(acceptance of
	facts (I)/evidence
	judged in context
	(S))
Beliefs about	• Innate (fixed
students'	ability) (I)
ability	• Malleable
-	(changeable
	ability) (S)

Note. The Theoretical Framework of the Study

The four teacher participants' selfreported beliefs about teaching were identified from teacher participants' responses to interview questions through one five. Participants' responses related to how they viewed teaching, the roles of teacher and student, classroom interaction and atmosphere, and student diversity. Responses were coded and respectively compared with the characteristics of student-centered instructional models and teacher-centered instructional models (Concept to Classroom, 2004; Doyle, 2008; Giesen, Slide 19; Varatta, 2017; Weimer, 2013).

Teacher participants' reported beliefs about knowledge were identified from the four teachers' responses to interview question six (what is knowledge?). The open-ended questions were used to elicit participants' views on the four dimensions of knowledge (certainty of knowledge, simplicity of knowledge, source of knowledge, and justification of knowledge). Participants' responses were analyzed by comparing each

answer with the categories of beliefs about knowledge derived from the framework of the study.

The identification of teacher participants' self-reported beliefs about students' abilities was conducted by analyzing teachers' responses to interview questions seven (What do you think about students' abilities?) and eight (What makes students' abilities differ from one another?). Teacher participants' responses to the questions were analyzed by comparing the answers to the categories of beliefs about students' abilities derived from the framework of the study.

3. RESULTS AND DISCUSSIONS

Results

Beliefs about Teaching

The four teacher participants' selfreported beliefs about teaching were identified from the qualitative content analysis of teacher participants' responses to interview questions one through five. Participants' responses were related to how they viewed teaching, the roles of teacher and student, classroom interaction and atmosphere, and student diversity. Responses were coded and respectively compared with the characteristics of studentcentered instructional models and teachercentered instructional models. The categories of participating teachers' self-reported beliefs about teaching that emerged from the data analysis are presented in Table 2.

Curriculum	Reform E	merged	from	Data		
Analysis Participants	Types of s	alf	Evompl	os of		
r articipants	• •		Examples of			
	reported beliefs ab		extracts			
			from			
	teaching		teacher			
			response	es		
Ms. Ani	Student-		Okay,			
	centered		teacher	as a		
	Instruction	n o 1	facilitat	or		
	Instruction	nai	and stuc	lent		
	learning		should b	be		
	beliefs		active to)		
			seek and	l dig		
			informa	tion		
			from			
			various			
			sources.			
			Teacher	S		
			just guio	le		
			and may	/be		
			give			
			students	the		
			key to fi	ind		
			the			
			informa	tion		
Ms. Biru ^a	Student-		The			
	centered		definitio			
	instruction		teaching	g for		
	learning		me is			
	beliefs/tea		transfer	ring		
	centered		the			
	instruction		knowled	lge I		
	learning		have to			
	beliefs		students			
			students			
			may lea			
			new thin			
			That's it			
			Teachin	g		
			means			
			transfer	ring		

Categories of Teacher Participants' Self-Reported Beliefs about Teaching in Relation to Curriculum Reform Emerged from Data Analysis Participants Types of solf Examples of

Table 2

		knowledge ^b	and l			
Ms. Cinta ^a Student- centered instructional learning beliefs/teacher- centered instructional learning beliefs beliefs for the beliefs life. Econo subjec really a to our life. So studen may le new th By lea they w receive inform Mr. Dilan Student- centered instructional learning beliefs Mr. Dilan Student- centered instructional learning beliefs studen may le new th By lea they w receive inform fact as facilitz who gy studen do wha they as suppos do. So I teach help studen particu learnin materi use the studen may le new th By lea they w receive inform fact as facilitz who gy studen do wha they as suppos do. So I teach help studen learnin materi use the studen suppos for So I teach help studen learnin materi use the studen learnin materi studen learnin materi studen suppos for So I teach help studen learnin materi studen learnin materi studen learnin materi studen suppos for So I teach help studen suppos for So So So I teach suppos for So So I teach suppos for So So I teach suppos for So I teach suppos for So So I teach suppos for So So I teach suppos for So So So I teach suppos for So So I teach suppos for So So So I teach suppos for So So So So So So So So So So So So So S	centered instructional learning beliefs/teacher- centered instructional learning	Students learn and receive learning materials which may be useful for their	and find expe Note. ^a Ms. Biru and Ms. Cinta's belt teaching lay between student-cent teacher-centered instructional learnin ^b Extracts indicated beliefs in teacher instructional learning models. Beliefs about Knowledge Teacher participants' reported about knowledge were identified from			
	life. So students may learn new things. By learning, they will receive new information ^b	teachers' responses to interview qu (what is knowledge?). The op questions were used to elicit pa views on the four dimensions of k (certainty of knowledge, simpl knowledge, source of knowledge				
	students to	justification of knowledge). Par responses were analyzed by compar answer with the categories of belie knowledge derived from the framewor study. Table 3 <i>Teacher Participants' Self-Reported</i> <i>about the Nature of Knowledge in Re</i> <i>Curriculum Reform</i> Beliefs Ms. Ms. Ms. about Ani Biru Cinta knowle dge				
		material, to use the content, and identify the benefits of learning the material. Students	CertainKnowlDepenKnowlty ofedge isds onedge isknowleevolvinthechangidgegtypesng andofevolvisubjectngs:Science isfixed;statefixed;			

TEACHERS' REPORTED BELIEFS ABOUT TEACHING, KNOWLEDGE, AND STUDENT'S ABILITY: CASE STUDIES OF FOUR SENIOR HIGH SCHOOL TEACHERS IN PALEMBANG, SOUTH-SUMATERA, INDONESIA

and learn to find experiences

's beliefs about t-centered and earning models. eacher-centered

ported beliefs d from the four w question six open-ended e it participants' of knowledge simplicity of owledge, and Participants' comparing each f beliefs about amework of the

eported Beliefs e in Relation to

Mr.

about knowle dge	Ani	Biru	Cinta	Dilan
Certain	Knowl	Depen	Knowl	Knowl
ty of	edge is	ds on	edge is	edge is
knowle	evolvin	the	changi	changi
dge	g	types	ng and	ng as
		of	evolvi	technol
		subject	ng	ogy
		s:		advanc
		Scienc		es
		e is		
		fixed;		

Vol 7, No 1 (2024): ESTEEM

		Social				by	others	with	and
		science is develo ping				interact ing with others		the help of experts	one's ability to constru ct from experie
Simplic ity of knowle dge	Knowl edge is a set of interrel ated concep ts	Knowl edge is a set of interrel ated concep ts	Knowl edge is comple x and connec ted to other	Knowl edge can be simple or comple x	Justific ation of knowle dge	Accept ing multipl e	Knowl edge can be justifie	Knowl edge can be justifie	nce Knowl edge can be justifie
			concep ts	depend ing on the level of knowle dge; Knowl	-	opinio ns	d by various opinio ns	d by compa ring varied opinio ns	d by one's ability to select from numer ous
				edge as a fact is simple;					opinio ns
				Knowl edge as	Th	e explora	<i>ent's Abil</i> tion of te	acher par	-
				a concep	_	nducted	fs about by ana	alyzing	abilities teachers'
				t is comple	•		view ques		
				x and interrel	•		ut studen es studen		
				ated to other			er?). Tea		
				concep ts		•	stions wer efs about	•	
					•		amework		
Source of knowle dge	From one's ability to constru ct inform	One may build knowle dge by interac ting	One may build knowle dge from experie	Come from various source s: teacher s as	participa	nts' self	he emerge -reported are present	beliefs	about
	ation	with	nce	experts					

Table 4

Teacher Participants' Reported Beliefs about Students' Abilities in Relation to Curriculum Reform improve their abilities

Donticiponto	Catagorias of	Examples of	Ms. Cinta	Students'	Students' skills
Participants	Categories of beliefs about	Examples of extracts from		abilities are	can be
	students'			malleable	improved.
		participants'		maneaone	Some students
	abilities	responses			may develop
Ms. Ani	Students'	Students have			their abilities if
	abilities are	diverse			they are close
	malleable	abilities, so I			to their
		need to serve			teachers. Some
		them based on			others do not
		their needs.			have any
		Their abilities			intention to
		are also			grow because
		changeable			they are not
					close to their
					teachers
Ms. Biru	Students'	Students'			
	abilities are	abilities can be			
	malleable	improved	Mr. Dilan	Students'	Students' skills
		depending on		abilities are	can be
		teachers. I		malleable	improved as
		think students			long as the
		are unique			ability is
		because of their			trained to
		diverse skills.			develop. So,
		As teachers, we			teachers need
		just need to			to teach
		know their			students to
		varied abilities,			develop their
		so we can find			ideas
		ways to			

Discussions

Teacher Participants' Self-Reported Beliefs about Teaching

Beliefs about teaching vary among individual teacher participants. By analyzing teachers' views on the definition of teaching, the role of teachers and students, classroom interaction and atmosphere, and student diversity, the research shows teachers differ in how they define teaching, portray their role and students' roles in learning, describe their ideal class, and handle student diversity. Teacher participants' views determine whether they support student-centered instructional learning models or teacher-centered instructional learning models. Implications based on how they perform their practices to promote or inhibit the implementation of curriculum reform were examined.

Two of the four teacher participants (Ms. Ani and Mr. Dilan) believe in studentcentered instructional learning models. Their views on the definition of teaching, the role of teachers and students, classroom interaction and atmosphere, and student diversity correspond with the characteristics of studentcentered instructional learning models. The identification of these two teacher participants' teaching beliefs confirms that teachers' teaching beliefs can be categorized into either student-centered instructional learning models or teacher-centered instructional learning models (Fives & Buehl, 2016).

The other two teacher participants (Ms. Biru and Ms. Cinta) seem to intertwine both types of instructional learning model beliefs. Ms. Biru's views on the roles of teacher and students. classroom interaction and atmosphere, and student diversity reflect her beliefs student-centered instructional in learning models. In contrast, her views on the definition of teaching indicate that she believes in teacher-centered instructional learning models. Likewise, Ms. Cinta's views on teaching and the roles of teacher and students pinpoint her beliefs in teacher-centered instructional learning models, while her perspectives on classroom interaction and atmosphere, and student diversity reveal her in student-centered instructional beliefs learning models.

These two teacher participants (Ms. Biru and Ms. Cinta) conceive the dichotomy of the two teaching beliefs as not mutually exclusive. Instead, they consider teaching beliefs as two continuum values. These findings confirm the work of Kember (1997), who found the third category of teachers' instructional learning models, a transitionary category that linked two instructional learning models. Kember argued that teachers' teaching beliefs may be situated between a more surface-like first learning model, and a more in-depth second learning model and vice versa.

Teacher Participants' Self-Reported Beliefs about Knowledge

The four teacher participants seem to agree in the four dimensions of beliefs about knowledge. They regard knowledge is evolving, complex, and connected to other concepts. They believe knowledge originates from one's ability to construct pieces of information by interacting with others. They support the view that knowledge claims can be justified by comparing data collected from multiple sources. As discussed by Five and Buehls (2016), the knowledge beliefs that the four teacher participants hold may influence their instructional preferences (Chan & Elliot, 2004; Sosu & Gray, 2012). They may consistently support the reform's agenda to facilitate students' learning construction by exposing students to various discoveries while encouraging learning activities that emphasize experimentation and argumentation.

Teacher Participants' Self-Reported Beliefs about Students' Abilities

Beliefs about students' abilities are similar among individual teacher participants. They do not regard students' abilities as fixed entities and believe that students may improve their abilities through effort and hard work. Their self-reported beliefs about students' abilities may influence their pedagogical practice in a way that is supportive of students' learning (Rissanen et al., 2018) and engage students in the process by teaching explicit problemsolving skills (Rattan et al., 2012). The four participants' self-reported beliefs about students' abilities may support their decision

regarding the implementation of curriculum reform.

4. CONCLUSIONS

To sum up, a curriculum reform initiative aims not only to set up a new policy but to transform the culture of educational contexts. If the reformed curriculum is not aligned with teachers who will use the curriculum in their classroom, the reform will not be implemented with fidelity. Teachers have pivotal roles in the implementation of curriculum reform because they are part of the overall construct of being able to support innovation. This construct is likely to help or hinder the implementation of new ideas and practices in a reformed curriculum (Rogan & Grayson, 2003). One of the important factors influencing a curriculum reform implementation is teachers' beliefs. Lam, Alviar-Martin, Adler, and Sim (2013) explained, "the nature of teaching and learning is highly dependent upon teachers' beliefs and their perceived capacities to enact learning goals within the educational and professional context" (p. 26). Teachers' beliefs and perceptions determine their interpretation of particular goals a curriculum reform seeks to achieve in classroom practice.

Each category of beliefs about teaching, knowledge, and students' abilities was explored within teacher participants' selfreported interview data. The four participating teachers shared similar views about the nature of knowledge and students' abilities. The four participants' knowledge and students' abilities

beliefs were identified as beliefs that supported curriculum reform. Nevertheless, beliefs about teaching were varied among individual participants. Two of the four teacher participants (Ms. Ani and Mr. Dilan) believed in student-centered instructional models, which were categorized into teaching beliefs that supported curriculum reform. Nevertheless, the other two participating teachers' (Ms. Biru and Ms. Cinta) self-reported beliefs about teaching were situated between student-centered instructional learning and teacher-centered instructional learning models. They seemed to value both instructional learning models. Ms. Biru and Ms. Cinta's beliefs about teaching could not be categorized into beliefs that supported or inhibited the reform.

5. REFERENCES

- Abdullah, S., & Majid, F. A. (2013). Reflection on language teaching practice in polytechnic: Identifying sources of teachers' beliefs. *Procedia Social and Behavioral Sciences, 90*, 813-822.
- Bhattacharyya, S., Volk, T., & Lumpe, A. (2009). The influence of an extensive inquiry-based field experience on preservice elementary student teachers' science teaching beliefs. *Journal of Science Teacher Education, 20*, 199-218.
- Buehl, M.M., & Fives, H. (2009). Exploring teachers' beliefs about teaching knowledge: Where does it come from? Does it change? *The*

Journal of Experimental Education, 77(4), 367-407.

- Buehl, M.M., Beck, J.S. (2015). The relationship between teachers' beliefs and teachers' practices. In H. Fives & M.G. Gill (Eds), *International handbook of research on teachers' beliefs* (pp. 66-84). Routledge.
- Chan, K.W., & Elliot, R. G. (2004). Relational analysis of personal epistemology and conception about teaching and learning. *Teaching and Teacher Education*, 20, 817-831.
- Concept to Classroom. (2004). Constructivism as a paradigm for teaching and learning. <u>https://www.thirteen.org/edonline/c</u> <u>oncept2class/constructivism/index.ht</u> <u>ml</u>
- Doody, O., & O'Connor, M. (2012). The influence of teacher practice placement on one's beliefs about intellectual disability: A student reflection. *British Journal of Learning Support, 27* (3), 113-118.
- Doyle, T. (2008). Helping students learn in a learner-centered environment: A guide to facilitating learning in higher education. Stylus.
- Eisenbach, B. B. (2012). Teacher belief and practice in the scripted curriculum. *The Clearing House*, 85, 53-156.
- Faculty Development and Instructional Design Center, Nothern Illinois University.
- Fives, H. & Buehl, M. M. (2016). Teachers' beliefs, in the context of policy reform. *Policy Insights from the*

Behavioral and Brain Sciences, 3(1), 114-121.

- Fullan, M. (2001). *The new meaning of educational change*. Teacher College Press.
- Giesen, J. [Lecture notes on Constructivism: A holistic approach to teaching and learning]. <u>https://www.niu.edu/facdev/_pdf/c</u> <u>onstructivism.pdf</u>
- Jaya, A., Hermansyah, H., & Mortini, A. (2018). The Effect of Crawford Series Teaching (CST) on the Students' Writing Achievement. *Esteem Journal of English Education Study Program*, Vol.1, pp.20-27. Accessed on January 25, 2023 from<u>https://jurnal.univpgri-</u> palembang.ac.id/index.php/esteem/ar ticle/view/4827.
- Jaya, A., & Mortini, AV (2023). Developing Moodle-Based E-Learning Media to Learn News Writing. *The Journal of English Literacy Education*, Vol.10, pp.37-45. Accessed on January 25, 2023 from<u>https://ejournal.unsri.ac.id/index</u> .php/jenglish/article/view/20818
- Kember, D. (1997). A reconceptualization of the research into university academics' conception of teaching. *Learning and Instruction*, 7(3), 255-275.
- Levin, B.B, & He, Ye. (2008). Investigating the content and sources of teacher candidates' personal practical theories (PPTS). *Journal of Teacher Education*, 59(1), 56-68.
- Murrel, Jr., P.C., & Foster, M. (2003). Teachers' beliefs, performance, and proficiency in diversityoriented teacher preparation. In J.

Raths & A.C. McAninch (Eds.), *Teacher beliefs and classroom performance: The impact of teacher education* (pp.43-64). Information Age Publishing.

- Rushton, G. T., Lotter, C., & Singer, J. Chemistry teachers' (2011).emerging expertise inquiry in teaching: The effect of a professional development model on beliefs and practice. Journal of Science Teacher Education, 22, 23-52.
- Song, Y., & Looi, C. (2012). Linking teacher beliefs, practices, and student inquiry-based learning in CSCL environment: A tale of two teachers. *Computer-Supported Collaborative Learning*, 7, 129-159.
- Wilkins, J. L. M (2008). The relationship among elementary teachers' content knowledge, attitudes, beliefs, and practices. *Journal of Math Teacher Education*, 11, 139-164.
- Yilmaz, H., & Cavas, P. H. (2008). The effect of the teaching practice on preservice elementary teachers' science teaching efficacy and classroom management beliefs. *Eurasia Journal of Mathematics, Science & Technology,* 4(1), 45-54.
- Rissanen, I., Kuusisto, E., Hanhimaki, E., & Tirri, K. (2018) The implications of teachers' implicit theories for moral education: A case study from Finland, *Journal of Moral Education*, 47(1), 63-77. <u>https://doi.org/10.1080/03057240.20</u> 17.1374244

- Roehrig, G. H. & Kruse, R. A. (2005). The role of teachers' beliefs and knowledge in the adoption of reform-based a curriculum. School Science Å Mathematics, 105(8), 412-422.
- Roehrig, G. H., Kruse, R. A. & Kern, A. (2007). Teacher and School Characteristics and their influence on curriculum implementation. *Journal of Research in Science Teaching*, 44(7), 883-907.
- Rogan, J. M., & Grayson, D. J. (2003). Towards a theory of curriculum implementation with particular reference to science education in developing countries. *International Journal of Science Education*, 25(10), 1171-1204.
- Lam, C. C., Alviar Martin, T., Adler, S. A. & Sim, J. B.-Y. (2013). Curriculum integration in Singapore: Teachers' perspectives and practice. *Teaching and Teacher Education*, 31, 23
- Craig, C. J. (2006). Why is dissemination so difficult? The nature of teacher knowledge and the spread of curriculum reform. *American Educational Research Journal*, 43(2), 257-293.
- Connelly, M. F., & Clandinin, D. J. (1988). *Teachers as curriculum planners: Narratives of experience*. The University of Columbia Press.
- Cronin-Jones, L. L. (1991). Science teachers beliefs and their influence on curriculum implementation: Two case studies. *Journal of*

Research in Science Teaching, 28(3), 235-250.

- Bartlet, L., & Vavrus, F. (2017). *Rethinking case study research: A comparative approach.* Routledge.
- Miles, M.B., Huberman, A.M., & Saldana, J. (2014). *Qualitative data analysis:* A methods sourcebook (3rd ed.). Sage.
- Nespor, J. (1987). The role of beliefs in the practice of teaching. *Journal of Curriculum Studies*, 19(4), 317-328.
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307-332.
- Calderhead, J. (1996). Teachers: Beliefs and knowledge. In D. C. Berliner., & R.C. Calfee (Eds.), *Handbook of educational psychology* (pp. 709-725). Prentice-Hall.
- Grbich, C. (2013). *Qualitative data analysis: An introduction.* Sage.
- Richardson, V. (1996). The role of attitudes and beliefs in learning to teach. In J. Sikula (Ed.), *Handbook of research on teacher education: A project of the association of teacher educators* (pp.102-119). Macmillan.
- Saldana, J. (2016). *The coding manual for qualitative researchers*. Sage.
- Schreier, M. (2012). *Qualitative content analysis in practice*. Sage.
- Sosu, E. M., & Gray, D. S. (2012). Investigating change in epistemic beliefs: An evaluation of the impact of student teachers' beliefs on

instructional preference and teaching competence. *International Journal of Educational Research*, *53*, 80-92.

- Varatta, K. (2017, April 14). *Teachercentered versus learner-centered learning*. Knowledge Works. <u>https://knowledgeworks.org/resource</u> s/learner-centered-learning/
- Weimer, M. (2013). Learner-centered teaching: Five key changes to practice (2nd ed). Jossey-Bass.
- Yin, R. K (2018). Case study research and applications: Design and methods (6th ed.). Sage. Yin, R. K. (2009). Case study research: Design and methods (4th ed.). Sage.
- Zhang, F. & Liu, Y. (2014). A study of secondary school English teachers' beliefs in the context of curriculum reform in China. *Language Teaching Research*, 18(2), 187-20