

Teachers' Perceptions of Research Culturalization in Elementary Schools

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ABSTRAK

Kultur riset diperlukan dalam mengembangkan praktik pendidikan di sekolah yang berdasarkan pada pengetahuan dan data yang teruji. Kulturisasi di level sekolah dasar merupakan fondasi penumbuhkembangan kultur riset di jenjang sekolah yang lebih tinggi. Tolok ukur kulturisasi riset dapat ditengarai oleh persepsi guru sebagai basis utama pola pikir riset. Penelitian ini bertujuan untuk menganalisis kulturisasi riset dari persepsi guru di sekolah dasar. Metode yang digunakan adalah deskriptif kualitatif dengan menggunakan kuesioner yang mengukur persepsi guru terhadap lima belas aspek kulturisasi riset. Analisis data dari sebanyak 379 guru sekolah dasar di daerah menunjukkan bahwa: (1) persentase persepsi guru terkait dengan pengetahuan terhadap kulturisasi riset sebesar 57% baru memulai; (2) persentase persepsi guru terkait dengan pemahaman sebesar 55% baru memulai; dan (3) persentase persepsi guru terkait dengan praktik sebesar 69% baru memulai. Hasil ini mengindikasikan bahwa kulturisasi riset berdasarkan persepsi guru berada pada level baru memulai, baik dari indikator pengetahuan, pemahaman, maupun praktik. Persepsi guru cenderung sama pada setiap aspek pengetahuan dan pemahaman serta lebih tinggi dalam setiap aspek pada praktik. Temuan penelitian ini menyimpulkan adanya kesadaran dan antusiasme akan pentingnya kulturisasi riset yang harus didukung oleh seluruh pemangku kepentingan yang terlibat baik itu pemerintah, guru, serta pimpinan dan tenaga pendidik lain di sekolah. Temuan ini juga memberikan tantangan bagi kebijakan dan praktik pendidikan yang sejalan dengan indikator kulturisasi riset di sekolah dasar.

ABSTRACT

Research culture is fundamental in developing educational practices in schools that are based on proven knowledge and data. Culturalization at the elementary school level is the foundation for developing a research culture at the higher school level. Teachers' perceptions can provide benchmarks for research culturalization practices in schools as the ultimate base of a research-based mindset. This research aims to analyze research culturalization as perceived by teachers in elementary schools. The method used is descriptive qualitative with a questionnaire that measures teachers' perception towards fifteen aspects of research Culturalization. Data analysis from 379 teachers of local elementary schools shows that: (1) the percentage of teachers' perceptions regarding knowledge of research culture is 57% just starting; (2) the percentage of teacher perceptions related to understanding is 55% just starting; and (3) the percentage of teacher perceptions related to practice is 69% just starting. These results indicate that the culturalization of research based on teacher perceptions is at a will-do level regarding knowledge, understanding, and practice indicators. Teachers' perceptions are alike in knowledge and understanding and higher in practice. These findings conclude an awareness and enthusiasm of research culturalization significance that should be supported by all stakeholders involved, such as the government, teachers, leaders, and other educators involved in the schools. These findings also provide challenges for policies and practices that align with research culturalization indicators in elementary schools.

1. INTRODUCTION

The dynamics of society are developing rapidly. Changes in economic, social, environmental, and other fields also contribute to increasingly complex educational challenges, integrating aspects of knowledge, skills, attitudes, and values needed to welcome the 21st century (Erdoğan, 2019; Malin et al.,

2020; Nelson & Campbell, 2019). At the same time, the push for research engagement as a basis for educational practice has increased in recent years. Various emerging concepts link the importance of fundamental aspects, from culture, mindset, and knowledge (Caraballo et al., 2017; Martin et al., 2019; Revai, 2022a) to implications for policy and practice (Boaz et al., 2022; Nelson & Campbell, 2017). Research culture is an essential foundation in education even though the implications in policy and practice still face various challenges (Caraballo et al., 2017; Martin et al., 2019; Revai, 2022). In addition, periodically, the stages of education for each individual begin at an early age. Ages 1 to 6 years are the foundation for starting lifelong learning. The foundation for learning the basic skills needed to live, work, and be part of society begins in primary education (Sukitman & Ridwan, 2021; Wen et al., 2020). In starting a research culture, a more fundamental aspect directly related to individuals cannot be separated from mindset. The simplified question is how we raise awareness and build positive attitudes towards systematically using research in educational policy and practice (Diery et al., 2020; Revai, 2022). One of the challenges of an educational mindset is related to the pedagogical climate in schools, which needs to be oriented toward fostering the search, discovery, and use of one's mind. These basic assumptions about the educational mindset cannot be separated from a set of logically and systematically related propositions, which are also characteristics of scientific research (French II, 2016; Komar, 2006). To arrive at this proposition, perception is one crucial first step in collecting information or facts, organizing information, and interpreting data or facts in implementing education.

Perceptions in the implementation of education are also related to expectations regarding the performance of that education. Expectations shape perceptions and engagement (Fu et al., 2022; Lange et al., 2018). In line with the theory of knowledge and action, perception is the starting point for beliefs that give birth to educational philosophy (Brown & Flood, 2018; Whitesmith, 2022). In schools, especially elementary schools, teachers are educational pioneers with a lot of experience and can be relied on teacher perceptions influence school learning and assessment practices (Burroughs et al., 2019; Mui So & Hoi Lee, 2011). Teacher perceptions also impact the environment and students' experiences at school so that they can provide appropriate references for implementing policies or making important decisions (Kiarie, 2016; Pas & Bradshaw, 2014).

Previously, defining school culture was related to the routines of students or teachers and teaching staff as symbols and the vision and values of the school's spirit in instilling goals and meaning (Deal & Peterson, 2016; Ismail et al., 2022). In this case, school culture has been perceived as merely a learning culture. The learning culture starts from awareness of the importance of the learning process for every element in the school, including students, teachers, teaching staff, and even parents, in providing a refreshing perception of educational practices in schools. However, a scientific, systematic, and objective research culture based on tested data has not been described. Research involvement in schools—specifically as a research culture—provides positive value. In providing education, these positive values include influencing decision-making, expanding thought patterns, and developing schools as intellectual communities (Ebbutt, 2002; Nugroho et al., 2018). For the reasons mentioned above, the study on educational research is significant as part of an effort to improve educational practice. Previous studies on research engagement in educational practices in schools in recent years have been found in several countries. In the United States, research engagement is assessed based on access, value, and usefulness of research for public schools managed by local governments, including its partnership objective (Farrell et al., 2021; Penuel et al., 2017). In England, high levels of research involvement in schools have been proven to trigger effectiveness and make organizations better managed with senior leaders as the main actors, and research role within the system has been identified (Coldwell et al., 2017; Godfrey & Brown, 2018). In Australia, research engagement is assessed by measuring the level of engagement of teachers and teaching staff in secondary schools (Gleeson et al., 2023). In Indonesia, the study of the phenomenon of Culturalization is better known as acculturation or habituation (Purwanto, 2020).

To have a long-term impact on Indonesian education, this research aims to analyze the culturalization of research in schools based on teachers' perspectives to which the thought pattern of the entire system is set, especially teachers in elementary schools assisted by local governments. This research aims to analyze culturalization research as perceived by teachers in elementary schools. Not many studies have analyzed perceptions of research culture in elementary schools, the novelty of this study is the perception on culturalization.

2. METHOD

The approach used in this research is descriptive qualitative (Seixas et al., 2018). The sample in this study consisted of 379 elementary school teachers in the Musi Banyuasin Regency area—one of the areas in South Sumatra Province, Indonesia. Through purposive sampling, the sample selection in this research is

part of an effort to build education in Indonesia from the regions, starting with schools supported by the regional government. Teacher respondents involved in this research included state elementary school (SDN) teachers and religious school teachers (SD IT), with the distribution per sub-district are show in Table 1.

Table 1. Elementary School Teachers' Respondents

No	Areas	Total
1	Babat Supat	10
2	Batanghari Leko	13
3	Jirak Jaya	1
4	Lais	93
5	Lawang Wetan	17
6	Sanga Desa	134
7	Sungai Keruh	7
8	Tungkal Jaya	8
9	Babat Toman	1
10	Bayung Lencir	6
11	Keluang	14
12	Lalan	12
13	Plakat Tinggi	15
14	Sekayu	30
15	Sungai Lilin	18
Total		379

The instrument used in this research was a questionnaire. The preparation of the questionnaire indicators, as listed in Table 2, adapts three aspects as knowledge, understanding, and practice: (1) The knowledge in this research is factual; that is, it refers to what happens and exists in the school; (2) Conceptual and procedural understanding related to elements within the school, starting from student characteristics to instilling research values in learning and assessment activities; (3) Practices in the form of organizing, utilizing and appreciating research and research results.

Table 2. Indicators of Research Culturalization in Schools

No.	Indicator	Aspect
1	Knowledge	Recognition of research and innovation culture. Cultivating thoughts, attitudes, skills, and values of research and innovation.
2	Understanding	Research and innovation-based curriculum learning and assessment Characteristics of students, educational units, local wisdom, regional resources, and a school environment that is relevant to research and innovation. Development of a research and innovation culture. Cultivating thoughts, attitudes, skills, and values of research and innovation. Research and innovation-based curriculum, learning, and assessment development.
3	Practice	Instilling research values in learning and assessment activities. Utilization of research and innovation results. Organizing research for students. Conducting research by teachers. Carrying out research by policymakers to take policies based on research. Organizing activities such as research workshops for educators and students, research trips, research festivals and exhibitions, local research competitions, etc. Awards related to research and innovation. Giving special appreciation to students who excel in the fields of research and Innovation.

Data on teachers' perceptions were collected through administering the questionnaire instrument above. The research Culturalization questionnaire in schools was developed based on a study of cultural elements (Deal & Peterson, 2016; Spencer-Oatey, 2012) and validated through expert judgment, namely researchers at the Education Research Center who are experts in the field of educational research. The

expert judgment assessment consists of three stages, namely content assessment, essence assessment, and readability assessment: (1) Content assessment based on the suitability between the item and the aspect being measured; (2) Essential assessment based on the urgency, basis, and nature of the item; (3) Readability assessment based on ease of understanding of the editorial. Data analysis was carried out by calculating teacher perceptions using a Likert Scale. The Likert scale is appropriate for use in perception-based research (Ho, 2017; Joshi et al., 2015). Teacher perceptions in this research were classified into three levels, namely: (1) Will do means starting the culturalization of research; (2) Be doing means currently developing research culture and running according to target; and (3) Been done means that the research has been implemented well and has exceeded the target. These three levels are identified in each aspect of the research cultural mindset: knowledge, understanding, and practice.

3. RESULT AND DISCUSSION

Result

This research aimed to analyze teachers' perceptions of research culturalization in elementary schools. Teachers' perceptions of the culturalization of research are more fully listed in Figure 1.

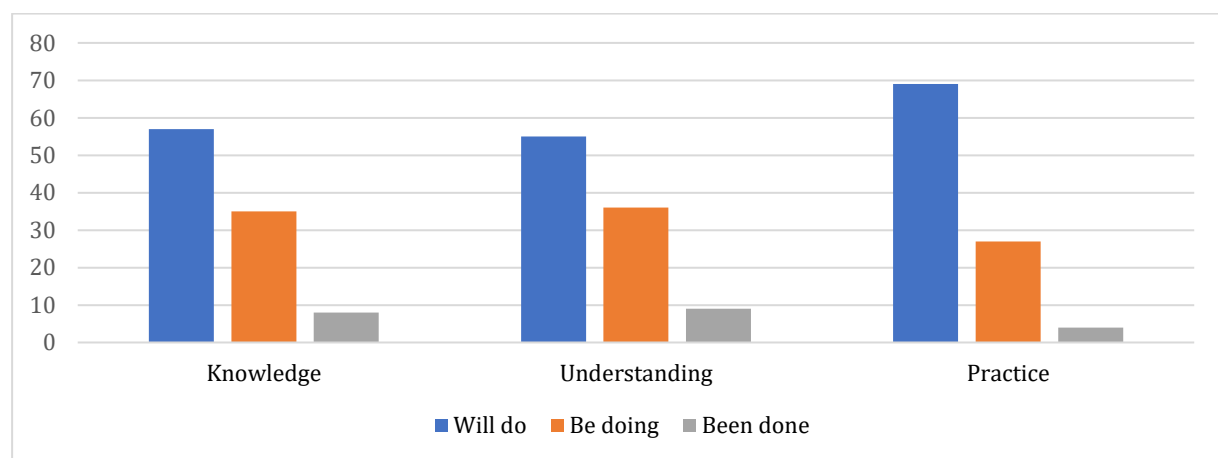


Figure 1. Research Culturalization of Teacher Perceptions

Based on the analysis of research questionnaire responses, as show in Figure 1 teachers' perceptions of research culturalization tend to be higher at the will-do level in every aspect of knowledge, understanding, and practice. The number of tendencies at the be-doing level is the same across aspects of knowledge and understanding. The trend at the been-done level is minimal compared to other levels for each indicator of research culture in schools. Then, teacher perception in knowledge aspect is show in Table 3.

Table 3. Teacher Perceptions in Knowledge Aspects

No.	Categories	Will do (%)	Be doing (%)	Been done (%)
1	Recognition of research and innovation Culture	63	30	7
2	Cultivating thoughts, attitudes, skills and values of research and innovation	49	41	9
3	Research and innovation-based curriculum learning and assessment	57	35	8

Base on Table 3, teachers' perceptions regarding the knowledge aspect of research culture tend to be at the will-do level. The percentage of teachers at the will-do level is far more vulnerable than at the been-done level. This shows that the culturalization of research in elementary schools has not yet been implemented. The tendency at the be-doing level also has a relatively high risk (more than 50%) compared to the recognition of school research and innovation culture. Regarding cultivating thoughts, attitudes, skills, and values, the tendencies at the will-do and be-doing levels are not far enough (8% difference). Regarding curriculum development, learning, and assessment, the trends of the levels of will-do and be-doing also show quite a big difference. Then a teacher perception in the understanding aspect is show in Table 4.

Table 4. Teacher Perceptions in the Understanding Aspect

No.	Categories	Will do (%)	Be doing (%)	Been done (%)
1	Characteristics of students, educational units, local wisdom, regional resources, and a school environment that is relevant to research and innovation	51	37	13
2	Development of a research and innovation culture	62	30	7
3	Cultivating thoughts, attitudes, skills, and values of research and innovation	52	40	8
4	Research and innovation-based curriculum, learning, and assessment development	59	35	7
5	Instilling research values in learning and Assessment activities	53	37	10

Base on Table 4, in understanding, the tendency for teachers at the will-do level is above 50%. The percentage data shows the same trend as in the knowledge aspect: the percentage decreases at the be-doing and then been-done levels. Understanding the characteristics of students, educational units, local wisdom, regional resources, and the school environment will begin as a basis for cultural research. Cultural development and cultivation of thoughts, attitudes, skills, and values also tend to be at the same level. Aspects of understanding based on instilling research values in learning and assessment and curriculum development are also in the same trend. A teacher perception in practical aspects is show in Table 5.

Table 5. Teacher Perceptions in Practical Aspects

No.	Categories	Will do (%)	Be doing (%)	Been done (%)
1	Utilization of research and innovation results	70	25	5
2	Organizing research for students	59	35	6
3	Conducting research by teachers	59	33	7
4	Carrying out research by policymakers to take policies based on research	66	29	6
5	Organizing activities such as research workshops for educators and students, research trips, research festivals, and exhibitions, local research competitions, etc.	73	25	2
6	Awards related to research and innovation	84	16	0
7	Giving special appreciation to students who excel in the fields of research and innovation	74	25	1

Base on Table 5, on the practical aspect, teacher perceptions tend to be at a higher will-do level than knowledge and understanding. The percentage of teacher perceptions is around 84% for awards related to research and innovation. Giving appreciation also shows a high trend of 74%. It is almost the same as organizing activities such as workshops, traveling, festivals and exhibitions, and competitions, which tend to be 73%. Another high trend is followed by utilizing research and innovation results at 70%. The provision of research for students, teachers, and policymakers has the same tendency of 59% for students and teachers and slightly increases for policymakers to make policies based on research.

Discussion

The research result implies an excellent start to research culturalization in elementary schools. Based on the analysis, the perceptions are higher in all knowledge, understanding, and practice categories. Learning-based knowledge is essential among those categories, as emphasized in the cultural element (Deal & Peterson, 2016; Spencer-Oatey, 2012). Cultures based on solid knowledge will continue to grow over a more extended time, in this case, especially at higher school levels. The knowledge becomes a need for cognition as to why something must happen and what is the basis for these things continuing. However, the initiation of knowledge management is not yet emphasized as a cultural change project (Sayyadi & Provitera, 2022; Serrat, 2017). If culture is about what an organization needs to do, knowledge makes an impact.

The result also confirms one of the challenges of an educational mindset, which needs to be oriented toward research by searching, finding, and using one's mind (Barrow & Woods, 2021; Nadelson et al., 2020). As most teachers perceive that they will start recognizing the culture of research and innovation, the description of the recognition of research and innovation culture is in line with the cultivation of thoughts, attitudes, skills, and values of research and innovation. Teachers' perceptions that have shown awareness of the importance of research culture is the first step in forming a belief in the matter of knowledge and the realization of research culture in elementary schools, in line with the concepts stated in the theory of knowledge and action (Whitesmith, 2022; Wonglorsaichon et al., 2014).

After the knowledge aspect, another essential aspect is understanding. Understanding is at a more active and complex cognitive level. Understanding extends knowledge (Björklund et al., 2020; Serrat, 2017). The teacher's perception of the understanding aspect shows a more practical implementation of knowledge. Understanding the characteristics of students, educational units, local wisdom, regional resources, and the school environment studied in this research is a very supportive basis for differentiated learning as well as an independent curriculum as the latest curriculum that currently implemented by the Indonesian government (Andini, 2022; Pitaloka & Arsanti, 2022). Understanding these conditions needs to be supported by cultivating thoughts, attitudes, skills, and values of research and innovation by embedding and developing them in learning and assessment activities at the basic education level. In other words, understanding contributes more to the acculturation process or, in this research, is emphasized by the name culturalization of research in schools. Teachers need to understand the entire system in the school, starting from students' educational units to local wisdom and regional resources and the environment where the school is located.

The unified understanding of these indicators aligns with the idea of culture as a whole, which includes a system of beliefs and activities (Spencer-Oatey, 2012; Whitesmith, 2022). The existence of indicators for the development of a culture of research and innovation, as well as the result of curriculum, learning, and assessment based on research and innovation, also continues the scope of culture in the form of a system of human actions (Brown & Flood, 2018; Sayyadi & Provitera, 2022). The consistent trend in the findings of this research shows an enthusiastic response that aligns with research culturalization efforts in elementary schools. In understanding the use of research results and innovation, teacher perceptions represent the implications in elementary schools and connect to the reality of students' experiences at school (Kiarie, 2016; Pas & Bradshaw, 2014). In understanding the implementation of research, teachers' perceptions generated based on the research analysis will influence learning and assessment practices in schools (Fu et al., 2022; Mui So & Hoi Lee, 2011). Teachers' understanding of the students will influence their practice, affecting students' learning and motivation (Borah, 2021; Lawson & Lawson, 2013). Confirmation of teacher perceptions through this research provided space for teachers to be more aware of the importance of research so that it has an impact on improving the quality of education implementation in schools, especially elementary schools.

Not much different from the knowledge aspect, very few teachers perceive that the culture of research and innovation has been implemented in the practical element and is running beyond targets. Apart from that, perceptions of practical aspects are significant for awards related to research and innovation. This action of showing appreciation and recognition will have a positive impact. It was already emphasized that rewards in prizes or recognition influence motivation and satisfaction (Anjum et al., 2021; Chan & Hooi, 2023). On the other hand, an important thing that needs to be underlined based on the findings of this research is that culturalization does not immediately occur in a short time. Culturalization or acculturation arises collectively from the interests and habits of the people involved and how they perceive things to be done in a system—returning to the basic concept of the theory of knowledge and action (Brown & Flood, 2018; Whitesmith, 2022).

As the most challenging thing to do, the culturalization process includes many factors that can influence each other. Something to be considered in elementary schools includes communication patterns between staff and how the school supports individual initiative and vision and responds to student needs (Blood & Thorsborne, 2005; Erawati et al., 2021). The Culturalization of research in elementary schools in Indonesia also needs to be supported by the idea of a national educational foundation which cannot be separated from the context of the characteristics, basic assumptions, essence, direction, and philosophy of education based on Pancasila (Dewantara et al., 2019; Komar, 2006). Eventually, elements in research culturalization must be studied further after the formation of thought patterns has passed the perception stage.

In this research, the contextualization of elementary schools in Indonesia is studied based on the perceptions of elementary school teachers in Musi Banyuasin Regency as an illustration of the Culturalization of research in implementing national education. In line with the recommendations of previous research teachers in this study provide views based on their experiences as educators in schools

(Burroughs et al., 2019; Kiarie, 2016). Teachers become part of the culture formed in the school, and the vision and values of the school's spirit can be addressed and interpreted. Carrying out research and innovation as part of implementing education in schools will also bring positive value (Deal & Peterson, 2016; Epçaçan, 2019; Oliver et al., 2022).

Another challenge that needs to be answered based on the findings of this research is also closely related to cultural dynamics in schools. Previous research in overseas contexts states that leadership influences school culture more (Deal & Peterson, 2016; Farrell, Penuel, & Davidson, 2022). In conditions where educational units are subject to regional autonomy policies, such as in Indonesia, schools in Musi Banyuasin Regency, as the subject of this research, need to receive maximum support from the local Education and Government Department. This also applies to other schools under the guidance of local governments—underlining that school culture is closely related to school management and the governance of school activities and practices (Brankovic & Lukić, 2018; Ismail et al., 2022). In this regard, research culturalization in elementary schools is inseparable from school restructuring. The concept of restructuring in question relates to the school's organizational structure, especially concerning leadership (Farrell, Penuel, & Davidson, 2022; Ibidunni & Agboola, 2013) and the implementation of learning, which includes all co-curricular, intra-curricular, and extra-curricular activities at school.

The sustainability of research culture in schools is a continuum, it continues from one level to a higher level of education (Deal & Peterson, 2016; Sherab & Schuelka, 2019). As already explained, the primary education level is the most crucial educational stage (Kim, 2022; Kokkalia et al., 2019). Elementary school is the basis for individual development in the early stages of growth and development as a complete individual, as well as the initial stage of cultivating a culture that can be used as an example at higher levels of education. Reflecting on previous research findings in the United States (Farrell, Penuel, Allen, et al., 2022; Penuel et al., 2017), England (Coldwell et al., 2017; Godfrey & Brown, 2018), and Australia (Gleeson et al., 2023), the findings of this research provide opportunities and challenges for educational policy and practice which can support the Culturalization of research according to the context of elementary schools in Indonesia which cannot be separated from the indicators of student characteristics, educational units, local wisdom, regional resources and the school environment as one of the indicators measured in this research.

4. CONCLUSION

Teachers' perceptions of research culturalization include knowledge, understanding, and practice. These aspects are the beginning of expanding the research mindset to become a culture practiced by all education elements through educational policies and practices at the elementary school level. Research culturalization in state and religious elementary schools managed by local governments in Indonesia has not yet been implied in this research finding. Support from policymakers, both the government and schools, impacts the creation of schools as intellectual and sustainable communities for higher levels of education. Further studies regarding practical and contextual challenges according to the diversity of conditions in Indonesia are needed to obtain a more holistic picture of the importance of research culturalization in schools.

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