

# Variations in Challenges and Practices of Elementary School Teachers in Strengthening Cultural and Civic Literacy in Sumedang Regency

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**Abstract.** The rapid advance of globalization has compelled elementary school teachers to continuously adapt to diverse challenges in fostering cultural and civic literacy. This study aims to map the variation of challenges and teaching practices among elementary teachers in Sumedang Regency, focusing on territorial characteristics. Employing an explanatory sequential mixed-method design, the research integrates quantitative data from Likert-scale surveys and qualitative insights from thematic analysis of open-ended responses, collected from 40 teachers in urban, rural, and suburban schools with varying teaching experience. Statistical and thematic analyses reveal notable differences in both the challenges and strategies encountered, influenced by school location and professional seniority. Teachers in urban schools and those with seniority reported greater complexity but demonstrated greater innovation, while teachers in rural and suburban settings faced more limitations in contextual cultural materials, digital access, and parental engagement. Novice teachers expressed a significant need for structured training and school support. Qualitative results highlight key barriers: inadequate cultural materials, limited professional development, diminished student motivation, and time constraints. These findings underscore the imperative for locally grounded resource development and professional training tailored to both territorial and experiential needs to effectively improve cultural and civic literacy at the primary level.

**Keywords:** cultural literacy, civic literacy, elementary teachers, territorial characteristics, Sumedang

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## INTRODUCTION

The issue of globalization demands cultural and civic literacy as a strategic competence that must be possessed by young generations from the elementary level (OECD, 2018). The integration of global society, rapid migration flows, and advancements in information technology have transformed the ways of interaction and communication. Consequently, students are expected not only to master knowledge but also to understand and wisely respond to diversity. Cultural literacy emphasizes the importance of understanding, appreciating, and practicing both local and global cultural values. In the Indonesian context, noble cultural values are passed down through traditions, regional languages, the arts, and community norms. Strengthening cultural literacy in elementary schools is essential so that students remain rooted in the nation's identity while still being open and able to adapt inclusively to global realities (Rahmawati et al., 2024).

The urgency of cultural literacy becomes even more specific in regions that carry a formal mandate as cultural centers. Sumedang Regency, through the Regent Regulation on Sumedang as the *puseur budaya Sunda* (center of Sundanese culture), is positioned not only as an administrative area but also as a strategic locus for the preservation, development, and transmission of Sundanese language and culture across generations. This regional policy

reinforces Sumedang's moral and legal responsibility to ensure that educational institutions especially elementary schools become frontliners in integrating Sundanese cultural values into daily learning. In other words, the gap between policy idealism and classroom practice in Sumedang directly reflects the extent to which this role as a cultural center has actually been realized at the school level.

On the other hand, civic literacy aims to encourage individuals to think and act critically, participate, and take responsibility as part of the nation and state. Good citizenship is not merely about understanding rights and obligations, but also contributing actively to maintaining tolerance, mutual cooperation, and practicing democracy at smaller scales in schools and communities (Atmojo & Lukitoaji, 2020). The Indonesian government has responded to these demands by strengthening character and cultural literacy development through various educational policies. One of these is the implementation of the Merdeka Curriculum, which emphasizes the importance of involving local contexts, strengthening transformative competencies, and empowering teachers as facilitators of value- and character-based learning (Kemdikbud, 2021). In the case of Sumedang, the alignment between the Merdeka Curriculum and the Regent Regulation about Sumedang as the *puseur budaya Sunda* ideally provides a strong normative foundation for schools to embed Sundanese cultural and civic values into learning designs in a systematic and contextual way.

However, the results of various studies have found a serious gap between policy idealism and learning practices in the field. The challenges faced by elementary schools are varied, ranging from limited local culture-based teaching resources, lack of relevant learning media, to minimal digital facilities and a supportive ecosystem, especially in rural and suburban areas (Pramesti & Bulan, 2023; Mesra & Santie, 2023). In addition, teacher readiness and experience are key factors that significantly determine the success of implementing cultural and citizenship literacy programs. Empirically, elementary school teachers are the main actors and implementers in the classroom in designing strategies, selecting resources, and evaluating the literacy learning achievements of their students (Dewayani, 2017). Unfortunately, many studies still focus on student learning outcomes, while aspects of the process, challenges, and teachers' practices as instruments of change receive less attention (Iswatiningsih et al., 2020; Juardi, 2024).

In fact, mapping real challenges and innovative teacher practices is very important as a basis for educational policy-making and the design of continuous training programs for educators. Differences in the characteristics of urban, rural, and suburban areas and the level of teaching

experience of teachers can give rise to their own dynamics that have an impact on the quality of cultural and civic literacy achievements. In Sumedang, these dynamics intersect with the regional vision of positioning the regency as the center of Sundanese culture, so that the success or failure of cultural and civic literacy programs in schools will also indicate the effectiveness of local cultural policies at the grassroots level.

This study aims to fill this gap by comprehensively analyzing the variations in challenges and practices of elementary school teachers in strengthening cultural and civic literacy in Sumedang Regency. Using a mixed-methods approach, quantitative and qualitative data are presented to produce a comprehensive picture and evidence-based recommendations, which can then serve as a basis for policy considerations and program development that are adaptive to the contextual needs of elementary schools as well as consistent with Sumedang's role as the *puseur budaya Sunda*.

## **METHODOLOGY**

This research utilized a mixed-methods approach. Mixed methods research systematically combines quantitative and qualitative methods in one study sequence (Creswell, 2012; Sugiyono, 2014). The primary goal is to obtain a more comprehensive, valid, reliable, and objective understanding of a research problem compared to using a single method. This combination allows researchers to obtain both numerical and narrative data, capturing both broad and in-depth aspects of the studied phenomenon (Sugiyono, 2014).

According to Creswell and other experts, mixed methods offer several advantages: (1) answering research questions that cannot be fully addressed by quantitative or qualitative methods alone, (2) extending and reinforcing conclusions through data integration, and (3) providing diverse frameworks for understanding educational issues. Additionally, mixed methods support collaboration and the application of multiple paradigms, making them practical and adaptive for researchers, especially in education for policy decision-making and innovation (Creswell & Plano Clark, 2018; Sugiyono, 2014).

### **Research Design and Procedure**

This study employed an explanatory sequential mixed methods design, which consists of two main phases carried out consecutively. In the first phase, quantitative data were collected and analyzed using a Likert-scale questionnaire to obtain an overview of general patterns and differences between respondent groups. Descriptive and inferential statistical analyses, such

as ANOVA, were used to identify central issues and statistically significant group differences (Creswell & Plano Clark, 2018; Nurhayati & Natasukma, 2019).

The Likert-scale questionnaire used in this phase first underwent a validity and reliability testing process. Content validity was examined through expert judgment involving specialists in cultural and civic literacy as well as in measurement and evaluation, who assessed the relevance, clarity, and representativeness of each item in relation to the intended constructs. Construct validity was then explored via item–total correlations to ensure that every item contributed adequately to the underlying dimensions. Reliability was estimated using Cronbach’s alpha with a pilot sample of elementary school teachers ( $N = 30$ ), and the overall coefficient exceeded the commonly accepted minimum threshold ( $\alpha \geq 0.70$ ), indicating that the scale possessed sufficient internal consistency for use in the main study.

The second phase collected qualitative data to gain deeper understanding of the underlying causes, adaptive strategies, and field experiences behind the quantitative patterns. Data were obtained through open-ended questions and focused interviews with teachers who had participated in the quantitative survey. The analysis followed a thematic coding procedure, starting with open coding (identifying salient issues), followed by axial coding (linking categories and subthemes), and selective coding (refining and integrating core themes). In this way, the qualitative findings did not merely “complete” the numbers but interpreted, expanded, and problematized them, thereby yielding a more comprehensive, valid, and contextual portrayal of field realities (Habibullah, 2024).

The strength of the explanatory sequential design lies in its ability to combine generalizable numerical findings with rich contextual narratives from participants. This model is particularly appropriate for educational research on cultural and civic literacy, which requires synthesizing the “what” (empirical facts and patterns of difference) with the “why” and “how” (causal factors, strategies, and mechanisms), thus generating multi-dimensional insights that are highly relevant for policy development and educational practice (Haynes-Brown & Fetters, 2021).

### **Research Location and Context**

The research was conducted in Sumedang Regency, which has a diverse range of areas including urban, rural, and suburban schools. The location was chosen to obtain a realistic picture of the dynamics of the educational situation in various geographical contexts while examining the influence of environmental differences on the challenges and practices of cultural literacy and citizenship. Importantly, Sumedang Regency is not only unique for its

geographical and socio-cultural diversity, but also holds a formal and strategic status as the *puseur budaya Sunda* (center of Sundanese culture), as stipulated in local regulation through Peraturan Daerah Kabupaten Sumedang Nomor 1 Tahun 2020 (Regional Regulation No. 1/2020) and strengthened by Peraturan Bupati (PERBUP) No. 113 Tahun 2009. This legal foundation gives Sumedang a distinct responsibility and role in the preservation, transmission, and development of Sundanese cultural values through educational institutions.

By focusing on Sumedang, which is tasked both normatively and practically with safeguarding and promoting Sundanese culture in the national and regional context, this study gains particular relevance. The findings are significantly positioned, meaning that not only do they address educational problems that are typical of various Indonesian regions (urban, suburban, rural), but also provide critical insights into how well local policy, aimed at making Sumedang a true center of Sundanese cultural and civic literacy, actually translates into concrete practices at the school level. Thus, lessons learned and recommendations from this study will have broader applicability and can inform both local and national strategies for cultural and civic literacy development, especially in regions with strong cultural identities and regulatory mandates.

### **Research Subjects**

The subjects in this study were 40 elementary school teachers who were selected purposively, taking into account the distribution of representation of each school location category (urban, rural, suburban) and variations in teaching experience (new, intermediate, and senior teachers). The sampling process was conducted using stratified purposive sampling to reflect the diversity of teaching contexts, so that the research results are relevant for both cross-regional and cross-professional experience comparisons. Data from teachers with different regions and experiences is important for examining differences in patterns of challenges, needs, and solution strategies implemented.

### **Analysis Instruments and Techniques**

Quantitative data collection in this study was carried out carefully using a structured five-point Likert scale questionnaire, which enabled researchers to obtain an objective picture of teachers' perceptions of learning challenges, resource availability, and student motivation in the context of cultural literacy and citizenship. All items in the instrument underwent a rigorous validity and reliability testing process before being administered to all respondents to ensure

that the data produced was credible and reflected the real situation in elementary schools (Creswell & Plano Clark, 2017; Sugiyono, 2014).

To map the differences in perceptions and experiences between teacher groups, quantitative data were analyzed using descriptive statistics and one-way ANOVA. This analysis aimed to test the significance of differences in scores for challenges, resources, and student motivation based on the variables of school location (urban, rural, suburban) and teaching experience level. With this approach, it is possible to identify factors that have a statistically significant effect on strengthening cultural and civic literacy in elementary schools (Creswell & Plano Clark, 2017).

Meanwhile, qualitative data was collected through open-ended questions that allowed teachers to share their personal experiences, actual obstacles, and innovations in their daily teaching practices. If necessary, follow-up interviews were conducted to deepen and clarify contextual issues that arose. Qualitative data analysis was conducted in stages using thematic coding techniques assisted by NVivo software, starting from open coding (identification of basic themes), axial coding (linking and grouping related themes), to selective coding (determination of the most dominant core themes).

The integration of both data sets was conducted after all phases of analysis were completed. Through triangulation, the researchers critically compared the statistical results (ANOVA) with the thematic findings from the NVivo coding. This method aims to present a comprehensive, humanistic, and contextual understanding of the complexity of challenges and literacy practices from the perspective of elementary school teachers. By combining the empirical validity of numerical data with the power of educators' real-life narratives, the research can produce conclusions that are both scientifically valid and relevant for future policy development or educational action (Creswell & Plano Clark, 2017).

## **RESULTS AND DISCUSSION**

The results and discussion section of this study is organized based on the stages of the explanatory sequential mixed methods described above. In the first stage, quantitative data analysis was conducted to capture an overview of the patterns of challenges, resources, and student interests faced by elementary school teachers, both in terms of school location and work experience. After that, the quantitative results were identified as the main issues, which were then followed by qualitative data exploration. Thematic coding techniques were applied

in order to explore detailed explanations, contextual meanings, and real strategies used by teachers in facing the challenges of cultural and civic literacy education.

### Descriptive Statistics of Teacher Profiles

Table 1 below shows the distribution of teachers based on school location in Sumedang Regency. This data shows the dominance of teachers in rural schools (60%), followed by urban schools (25%), and suburban schools (15%). This distribution represents the diversity of educational contexts in Sumedang, including schools with relatively advanced access and facilities in cities and limited conditions in villages and suburbs. This composition is adequate for cross-variable analysis and supports the validity of the research population ecology (Sugiyono, 2014).

**Table 1.** Distribution by School Location

School Location	Number of Teachers	Percentage
Urban	10	25
Rural	24	60
Suburban	6	15

Table 2 shows the diversity of teachers' teaching experience, ranging from beginners to seniors. This data is relevant for comparing the results and effects of experience in cultural literacy and citizenship practices.

**Table 2.** Distribution by Teaching Experience

Experience	Number of Teachers	Percentage
0–5 years	8	20
6–10 years	12	30
11–15 years	11	27.5
>15 years	9	22.5
0–5 years	8	20

In terms of teaching experience, the largest proportion of teachers (30%) had between 6 and 10 years of experience (12 teachers), followed by teachers with 11–15 years of experience (27.5%, 11 teachers). Meanwhile, 20% (8 teachers) are classified as new teachers (0–5 years), and 22.5% (9 teachers) have served for more than 15 years. This variation in teaching experience provides an overview of the range of professionalism and potential variations in strategies and challenges faced by teachers in implementing cultural and civic literacy strengthening.

The distribution of data based on location and experience is very important for understanding the unique context of each region and the potential contribution of experience in observing literacy issues and solutions in elementary schools in Sumedang Regency. Previous research highlights that the disparity in education quality between urban, rural, and suburban areas remains an important issue in Indonesia, as reflected in the uneven distribution of teachers and facilities (GTK Dikdasmen, 2025). This distribution, which represents the diversity of contexts, is expected to strengthen the validity of the results and the relevance of policies based on research findings.

### **Descriptive Statistics of Likert Scores**

Table 3 shows the average Likert scores for each indicator based on school location. This data helps to understand the trends in challenges perceived by teachers according to regional context.

**Table 3.** Mean Likert Scores by Location

Indicator	Urban	Rural	Suburban
General Challenges	3.65	3.22	2.98
Resources	3.28	2.93	2.72
Student Interest	3.34	2.86	2.85

The mean score for each indicator shows teachers' perceptions of three key aspects, namely general challenges, resources, and student interest in strengthening cultural and civic literacy, which differ according to school location.

On the General Challenges indicator, teachers in urban areas obtained the highest average score (3.65), meaning that they tend to face challenges in teaching cultural and civic literacy more often or more severely than teachers in rural areas (3.22) or suburban areas (2.98). This can be attributed to more complex community expectations and curriculum demands in cities, as well as greater student diversity, which adds to the challenges (Pramesti & Bulan, 2023). Meanwhile, teachers in rural and suburban areas reported that general challenges were still high but slightly lower, possibly due to the strong collaborative culture in rural communities or different expectations.

In terms of resources, teachers in urban areas scored higher (3.28) than those in rural areas (2.93) and suburban areas (2.72). This shows that teachers in cities find it relatively easier to access resources (books, media, technology, training), even though the score is still in the moderate category. Teachers in suburban areas seem to face the lowest limitations in

accessing resources, which is in line with various research findings on the inequality of educational resource distribution in peri-urban zones (Mesra & Santie, 2023).

For the Student Interest indicator, the average score in urban areas (3.34) is slightly higher than in rural areas (2.86) and suburban areas (2.85). This means that teachers in urban areas assess students' interest in cultural literacy and citizenship as relatively better, although it has not yet reached the very high category. This difference can be explained by the more varied urban environment and more frequent literacy stimulation, whereas in rural/suburban areas, student motivation is limited by factors such as family support, facilities, and the attractiveness of teaching materials (Wulandari & Yuliani, 2022).

In general, this data confirms that the location of the school influences teachers' perceptions and actual conditions in implementing cultural and civic literacy reinforcement. Teachers in urban areas face greater challenges but receive relatively better resource support and student interest. Conversely, in suburban and rural areas, challenges are compounded by a lack of facilities and non-academic external factors.

The implication is that strategies for strengthening cultural and civic literacy need to be adapted to the location context. For cities, the focus should be on innovation and diversification of learning approaches; for villages/suburbs, the priority should be on providing resources, locally-based teacher training, and involving families and communities as a supporting ecosystem for literacy in elementary schools.

**Table 4.** Mean Likert Scores by Experience

Indicator	0-5 years	6-10 years	11-15 years	>15 years
Common Challenge	3.10	3.27	3.44	3.55
Resources	2.85	2.84	3.13	3.40
Student Interest	2.81	2.93	3.12	3.18

Based on the average Likert scores for the three main indicators (General Challenges, Resources, Student Interest) according to teaching experience groups, a trend was found that the longer the teaching experience, the higher the perception of challenges, access to resources, and student interest in cultural and civic literacy.

On the General Challenges indicator, teachers with >15 years of experience recorded the highest score (3.55), followed by the 11–15 year group (3.44), 6–10 years (3.27), and 0–5 years (3.10). This shows that the longer a teacher has served, the more sensitive and realistic

they are in assessing and facing challenges in the field. Senior teachers tend to face more complex challenges, such as increasing community expectations, repeated curriculum changes, and the ever-changing dynamics of student behavior (Iskandar, Dewi, & Hayat, 2024). Meanwhile, new teachers, although facing challenges, may not yet fully realize these dynamics due to their limited experience.

In the Resource indicator, there was an increase in scores according to experience group: teachers with >15 years (3.40), 11–15 years (3.13), 6–10 years (2.84), and 0–5 years (2.85). Experienced teachers are often more proactive in seeking, creating, or managing resources despite limitations (Dewayani, 2017), while novice teachers are more likely to rely on available facilities and still need guidance in finding alternative resources.

For the Student Interest indicator, the same trend emerged. Teachers with >15 years of experience reported the highest score (3.18), followed by those with 11–15 years (3.12), 6–10 years (2.93), and 0–5 years (2.81). Longer teaching experience allows teachers to develop more adaptive, creative, and contextual learning strategies to foster student interest in cultural and civic literacy. New teachers are sometimes still looking for the best patterns and tend to be less confident in motivating the class.

These findings confirm the literature that teacher work experience is an important factor in the effectiveness of literacy strengthening in elementary schools (Atmojo & Lukitoaji, 2020; Mesra & Santie, 2023). Senior teachers are not only more sensitive to challenges but also have advantages in strategy innovation and collaboration with external parties such as parents and the community. The implication is that schools need to ensure the availability of mentoring, tiered training, and spaces for sharing good practices among teachers across generations so that all teachers, especially new ones, can learn from the experiences of senior teachers, thereby building the sustainability of cultural literacy programs collectively and continuously.

### **Inferential Statistics: ANOVA Test Results**

**Table 5.** ANOVA Test Output for General Challenges Scores Based on Location

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.60	2	1.30	4.21	0.021
Within Groups	11.88	37	0.32		
Total	14.48	39			

Based on the ANOVA test output for the "General Challenges" score by location, an F value of 4.21 was obtained with a significance (p) of 0.021 ( $<0.05$ ). The ANOVA test was used to determine whether there were differences in the average scores between the three school location groups (urban, rural, suburban) in teachers' perceptions of the general challenges of teaching cultural and civic literacy. The significance value of  $0.021 < 0.05$  confirms that there are significant differences in common challenges between school locations. This interpretation supports the educational ecology theory regarding the influence of the environment on teachers' perceptions and challenges (Creswell & Plano Clark, 2018).

This means that, empirically, it can be concluded that the challenges experienced by teachers from the three school locations are indeed significantly different, and not just a statistical coincidence. Thus, school location has been proven to be a factor that influences the magnitude of the challenges faced by teachers in supporting cultural and civic literacy in elementary schools in Sumedang Regency.

**Table 6.** ANOVA Test Output for Resources Scores Based on Location

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,86	2	0,93	3,12	0,055
Within Groups	11,03	37	0,30		
Total	12,89	39			

A significance value of  $p=0.055 > 0.05$  indicates that there is no statistically significant difference in the availability of literacy support resources (such as books, libraries, reading corners, or access to technology) between school locations, whether in cities, villages, or suburbs.

Although urban schools generally have better access to libraries, reading materials, and digital facilities, the reality is that limited resources remain a challenge across all regions. Many schools in villages are constrained by facilities and access according to research, more than 40% of schools in villages do not have adequate computers, and limitations in book collections or literacy programs are very noticeable. However, limitations are also often found in urban schools that face a surge in student numbers, limited space, or constraints in the distribution of books and literacy programs.

The facts on the ground show that the lack of library facilities, reading corners, and literacy programs is not only experienced by one type of region, but remains a major issue for all elementary schools in Indonesia (Amri & Rochmah, 2021; Odah & Yuniarti, 2023). Therefore,

every school—both in cities and villages needs sufficient resource support so that literacy improvement efforts can run optimally and evenly.

In other words, improving literacy facilities and supporting resources must be a shared priority, not just a focus in certain areas. Successful literacy programs are usually born from collaboration between schools, governments, and communities in all regions, so that all students have equal opportunities to develop their literacy skills.

**Table 7.** ANOVA Test Output for Student Interest Scores Based on Location

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,62	2	0,81	2,14	0,133
Within Groups	13,98	37	0,38		
Total	15,60	39			

The significance value ( $p=0.133$ ) $>0.05$  shows that there is no significant difference in students' interest in cultural literacy and citizenship between school locations; that is, whether the school is in an urban, rural, or suburban area, students' interests tend to be similar.

These results can be explained by various studies that have found that students' interest and motivation in literacy are more influenced by internal factors and their immediate environment than by the location of their school. These internal factors include personal motivation, curiosity, talent, attention, and readiness to learn that arise from within the students themselves. If a student has a strong curiosity and inner drive to learn, their interest in cultural literacy will grow, regardless of the school's location.

In addition to internal factors, the role of teachers, families, and a culture of reading at home also play an important role in building student interest. Teachers who are able to provide interesting lessons, a family environment that supports reading habits, and the availability of adequate resources or facilities will further increase students' interest in learning, regardless of the school's location.

Therefore, to increase students' interest in cultural literacy and citizenship, efforts should not only focus on the school's location but also on strengthening students' internal motivation, supporting the role of teachers, and involving families as a supporting ecosystem for literacy habits.

Meanwhile, a one-way ANOVA test was also conducted on the three indicators based on teacher experience.

**Table 8.** ANOVA Test Output for General Challenges Scores Based on Teaching Experience

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,28	3	0,43	2,09	0,116
Within Groups	7,55	36	0,21		
Total	8,83	39			

A significance value ( $p=0.116$ ) $>0.05$  means that there is no statistically significant difference between new and experienced teachers in terms of general challenges of cultural literacy and citizenship. This means that both novice and senior teachers face similar literacy challenges. Although experienced teachers may appear to be more sensitive or have more diverse strategies due to their extensive experience, the results of this statistical test show that teaching experience is not the only major determinant of the emergence or severity of the challenges felt (Creswell & Plano Clark, 2018).

Experience remains important to support innovation and reflection, but recent research confirms that the school environment, facility support, collaborative culture, and shared commitment are more decisive in determining the success of literacy movements (Saputro, 2018; Puslitjak Kemendikbud, 2017). Therefore, strategies to strengthen cultural and civic literacy require systemic improvements in all aspects of the school ecosystem, not just an increase in individual teachers' experience.

**Table 9.** ANOVA Test Output for Resource Scores Based on Teaching Experience

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,41	3	0,47	1,85	0,152
Within Groups	9,19	36	0,26		
Total	10,60	39			

The significance value ( $p=0.152$ ) $>0.05$  means that there is no significant difference in the availability of literacy resources in schools according to teacher experience groups—both new teachers and teachers who have been teaching for a long time experience relatively similar resource situations.

These results indicate that the issue of limited or poor-quality learning resources (such as books, libraries, reading corners, and digital tools) is a systemic problem faced by almost all teachers regardless of their level of experience or generation (Frianti, 2022; Amri & Rochmah, 2021). Senior and junior teachers each have their own unique characteristics, but in terms of

limitations or access to literacy resources, the challenges are relatively the same, so improvements in resources need to be directed at all teachers, not just certain groups in schools.

Thus, efforts to improve literacy facilities and training should be inclusive and equitable across experience levels, and strengthen collaboration among teachers as a way to complement each other's strengths and cover each other's weaknesses.

**Table 10.** ANOVA Test Output for Student Interest Scores Based on Teaching Experience

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,08	3	0,36	1,36	0,269
Within Groups	9,42	36	0,26		
Total	10,50	39			

A significance value of  $p=0.269 > 0.05$  indicates that student interest in cultural literacy and citizenship does not differ significantly between groups of new and experienced teachers. This means that both novice and senior teachers encounter similar levels of student interest in literacy in their classrooms.

Simply put, teacher experience is not a major factor in determining differences in student interest. Various studies show that the role of teachers as motivators, facilitators, and dynamizers is very important in building student interest that is, by encouraging, facilities (reading corners), and habits or literacy programs that are attractive to children (Munawir et al., 2023); (Nazir, 2023); (UNARS, 2023). In addition, learning motivation and reading culture at home also influence students' interest in literacy. Therefore, efforts to increase students' interest in reading are more effective when teachers actively accompany them, design fun literacy activities, and involve parents in reading habits at home and at school.

In other words, strengthening the role of teachers and the learning environment and involving families is far more influential than simply adding to teachers' work experience in increasing students' interest in cultural and civic literacy.

In conclusion, the ANOVA test and its interpretation of all indicators confirm the theory of ecology and educational literacy, namely that the school environment, facility support, and the active role of teachers and parents as role models are still the main determining factors for the success of cultural literacy. Differences in school location were found to affect the level of challenges faced, while teacher experience, resources, and student interest did not show

statistically significant variations. Contemporary cultural literacy studies also recommend improving literacy facilities, involving parents, and providing intensive teacher training to make the literacy movement in elementary schools more effective.

### Qualitative Findings: NVivo Coding Results

Table 11 presents a summary of the NVivo thematic coding results from the teachers' qualitative responses. Five main themes were found in the teachers' narratives related to cultural literacy and citizenship.

**Table 11.** Thematic Coding Summary

Main Theme	Frequency
Limited local culture materials	22
Minimal training/professional development	19
Low student motivation	24
Administrative load/time constraints	17
Limited parental support	12

Themes of “limited local culture materials” and “insufficient training” are particularly dominant among rural and peri-urban teachers. Other recurring themes low student motivation, administrative burden, and limited parental support highlight complex constraints.

Materials for teaching local culture often rely on centralized textbooks, which may be generic and insufficiently capture local wisdom (Suryawan et al., 2022; Handayani, 2023). Teachers frequently have to develop their own teaching resources, which requires extra time, effort, and skills—often in conflict with administrative duties or school resource limitations.

Lack of training is also a persistent problem, especially in remote and fringe areas. Many teachers feel unprepared to adapt culture-based instructional methods due to insufficient training and lack of professional sharing forums. This disconnect hinders the integration of local values into the formal curriculum.

School, family, and community collaboration, per Bronfenbrenner's ecological learning theory (1979), is essential for meaningful cultural education. Where local resources and training are inadequate, the potential for cultural literacy will not be realized in the classroom.

### Integration of Quantitative and Qualitative Results: Holistic Interpretation

The integration of the quantitative test results (ANOVA) and the qualitative findings (NVivo thematic coding) provides a single, interconnected picture both numerically and in terms of deeper meaning of the challenges of cultural and civic literacy in elementary schools in Sumedang Regency. Rather than standing apart, the two strands of data are read together so that each statistically significant difference is immediately illuminated by teacher narratives, and each recurring theme in the interviews is situated within the broader pattern of scores across groups (Creswell & Plano Clark, 2018; Habibullah, 2025).

For the dimension of “general challenges”, ANOVA indicates significant differences between school locations, with teachers in urban schools reporting higher levels of pressure related to innovation, demands for digital learning, and complex expectations from parents and communities. This statistical pattern is directly echoed and clarified by qualitative accounts in which urban teachers repeatedly describe the need to constantly update digital platforms, respond to parents’ expectations for “modern” instruction, and manage more heterogeneous classrooms. In contrast, rural and peri-urban teachers do not simply score lower on this dimension; their interview narratives show that their main difficulties center on the scarcity of local culture–based teaching materials, limited opportunities for professional development, and bureaucratic or administrative constraints. Thus, the ANOVA differences by location are not abstract numbers: they map onto distinct constellations of everyday problems “innovation pressure and digital complexity” in urban schools versus “resource and support constraints” in rural and peri-urban schools implying that any literacy-strengthening strategy must be location-sensitive rather than uniform.

For the “resources” aspect, ANOVA reveals no significant differences between school locations or teacher experience groups. On the surface, this might suggest that resources are evenly distributed, but the qualitative coding tells a more nuanced story that still aligns with the quantitative pattern. Themes such as “limitations of local cultural materials”, “insufficient training”, and “inadequate literacy facilities” emerge with high frequency across all groups, regardless of region or years of teaching. In other words, the absence of statistically significant gaps in the ANOVA is substantiated by the interviews: teachers in urban, rural, and peri-urban schools all describe similar systemic obstacles in access to libraries, culturally relevant materials, and digital reading corners. This integrated reading supports the interpretation that resource issues are not localized anomalies but structural problems that require system-wide interventions, rather than targeted support for only certain areas or cohorts.

A similar pattern appears in the dimension of student interest. ANOVA indicates no significant differences based on school location or teacher experience, and the qualitative data help explain why. Across all strata, teachers associate fluctuations in students' interest less with geography or seniority and more with pedagogical approaches, family support, and the rhythms of children's everyday lives. The theme of "low or unstable student motivation" is prevalent in interviews from all regions and experience levels, often tied to monotonous teaching methods, limited parental engagement, or competition with digital entertainment. Read together, the quantitative stability (no significant differences) and the qualitative themes suggest that efforts to foster motivation through more engaging, culturally rich, and family-inclusive learning designs are needed broadly, not only in specific school types.

By explicitly weaving together ANOVA outputs and NVivo-derived themes for each core dimension, this study generates a genuinely holistic interpretation of the challenges and practices of elementary teachers. The quantitative data identify where statistically meaningful contrasts do and do not occur, while the qualitative narratives specify what those contrasts mean in practice, which mechanisms likely drive them, and what contextually appropriate responses might look like. Recent literature on cultural and civic literacy likewise emphasizes that such tight integration of numerical evidence and narrative explanation is crucial to ensure that policy and school-level interventions respond to actual field conditions rather than to statistics in isolation (Feri, 2025; Al Jawad, 2024; Habibullah, 2025).

## CONCLUSION

This study demonstrates that the challenges of cultural and civic literacy among elementary school teachers in Sumedang Regency are profoundly shaped by school location, as supported by both quantitative and qualitative evidence. ANOVA results reveal statistically significant differences in general challenges across regions—urban teachers express much heavier pressure for innovation and digital demands, a trend that interviews clarify is closely linked to high community expectations and the rapid pace of technology adoption in urban areas. Meanwhile, teachers in rural and peri-urban schools, as both statistics and narratives attest, face the most acute obstacles in the form of limited access to culturally relevant teaching resources, insufficient training opportunities, and administrative barriers, underscoring that the sources of challenge are context-dependent.

In contrast, for resource availability (such as book collections, digital corners, or learning materials) and student interest/motivation, both ANOVA and NVivo coding show a remarkable uniformity: these issues are recognized as systemic barriers across all school types and

teacher cohorts. Teachers repeatedly highlighted regardless of location or seniority—that inadequate facilities and a lack of motivating literacy environments are persistent hurdles. Interview themes of “limited local materials” and “difficulty motivating students” recur universally, explaining the absence of significant statistical differences and reinforcing the need for broad-based interventions.

Integrating these two strands, this study provides a holistic understanding of where and why literacy development efforts must be focused. It shows clearly that improvements cannot be limited to specific dimensions or regions. Effective strategies will require not only addressing the resource gap and upgrading facilities at all schools but also fostering innovative, contextually adapted teaching practices through systematic training and collaboration. The findings also reemphasize the critical supporting role of family involvement and community-based literacy networks, as both the quantitative and qualitative data confirm the positive influence of active community engagement on cultivating cultural and civic values among elementary school children.

Therefore, future literacy strengthening programs must be rooted in a fine-grained mapping of the distinctive challenges faced in each local context, while systemically advancing the supporting ecosystem through development of localized teaching materials, tiered and context-sensitive teacher training, and school-family-community partnerships to create a more equitable, adaptive, and sustainable literacy environment for all students. This holistic, evidence-based approach enables school stakeholders and policymakers to tailor interventions that both address statistical disparities and respond to the true lived experiences and needs of educators and students in the field.

### **Recommendations**

1. The development of locally rooted teaching materials in every elementary school should be prioritized, involving teachers, communities, and cultural experts so that learning becomes more contextual, meaningful, and aligned with Sumedang’s mandate as the center of Sundanese culture.
2. The development and implementation of tiered, context-sensitive teacher training on cultural and civic literacy need to be strengthened, with particular attention to teachers in rural and peri-urban areas who face limited access to professional development.
3. Collaborative partnerships between schools, parents, and communities (including literacy and local cultural communities) should be reinforced to support a sustainable literacy

ecosystem in elementary schools, both in terms of reading habits and the practice of cultural and civic values.

4. The development and use of adaptive digital learning media should be promoted, especially in urban schools that experience higher demands for innovation and technology use, while also exploring models that can be meaningfully adapted for rural and peri-urban contexts.
5. Mentoring and the sharing of best practices (through structured mentoring programs and lesson study) between senior and novice teachers need to be institutionalized at school and cluster/teacher working-group levels, so that the transfer of experience, innovation, and cultural–civic sensitivity can be sustained over time.

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