

Mobilizing Indigenous Cultural Capital Through Arts-Based Pedagogy for English Literacy Acquisition Among Kensiu Orang Asli Pupils in Malaysia

Dzafira Mohd Sharani¹, Dr. Hariharan N. Krishnasamy², Dr. Rafizah Mohd Rawian³, Muhammad Afifi Abdul Razak^{4*}

¹School of Languages, Civilisation and Philosophy, Universiti Utara Malaysia, Email: dzamosh83@yahoo.com, ORCID: 0009-0009-2318-0378

²Associate Professor, School of Languages, Civilisation and Philosophy, Universiti Utara Malaysia, Email: hn1084@uum.edu.my, ORCID: 0000-0003-2775-0584

³Associate Professor, School of Languages, Civilisation and Philosophy, Universiti Utara Malaysia, Email: rafizah@uum.edu.my, ORCID: 0000-0003-1407-3967

⁴School of International Studies, Universiti Utara Malaysia, Email1: afifi@uum.edu.my, Email2: afifirazak@gmail.com, ORCID: 0009-0002-5744-2160

***Corresponding Author:** Muhammad Afifi Abdul Razak, Email Id: afifirazak@gmail.com

HOW TO CITE:

Dzafira Mohd Sharani,
Hariharan N. Krishnasamy,
Rafizah Mohd Rawian,
Muhammad Afifi Abdul Razak
(2026). Mobilizing Indigenous
Cultural Capital Through Arts-
Based Pedagogy for English
Literacy Acquisition Among Kensiu
Orang Asli Pupils in Malaysia.
International Journal of Special
Education, 41(11s), 95-107

ABSTRACT:

Indigenous pupils in multilingual communities face compounded barriers to English literacy acquisition that conventional deficit-oriented pedagogy fails to address. This study investigates how arts-based Culturally Responsive Pedagogy (CRP) mobilizes the cultural capital of Kensiu Orang Asli pupils in Baling, Kedah, Malaysia, a community navigating a Triple Language Hurdle from their mother tongue (L1 Kensiu) through Bahasa Malaysia (L2) to English (L3). Grounded in Bourdieu's Cultural Capital Theory and Vygotsky's Sociocultural Theory, the study evaluates how the My Story Stones intervention transforms pupils' embodied capital into scholastic currency. An Explanatory Sequential Mixed-Methods design was employed with a total population census (N=50) at SK Siong. Baseline profiling confirmed a Capital Mismatch, high embodied capital (M=2.62) alongside scarce objectified resources (M=1.25), correlating strongly with low initial English literacy ($r=.682$, $p<.001$). Following an eight-week intervention, statistically significant literacy gains were recorded ($t(43)=-23.21$, $p<.001$, $d=1.00$), with mean performance rising from TP 2.45 to TP 3.57. Student engagement also improved significantly ($t(43)=28.45$, $p<.001$, $d=4.20$). Qualitative analysis yielded five themes centred on translanguaging, cultural familiarity, and semiotic mediation. The study introduces the Cultural Capital Mobilization Model, demonstrating that indigenous embodied capital, when pedagogically activated through arts-based CRP, serves as a legitimate bridge to English literacy acquisition.

COPYRIGHT STATEMENT:

Copyright: © 2026 Authors.
Open access publication under the
terms and conditions

Under a Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

Keywords: cultural capital mobilization, arts-based pedagogy, Culturally Responsive Pedagogy, English literacy acquisition, indigenous language learners

1. Introduction

English literacy acquisition among indigenous communities in postcolonial multilingual societies represents one of the most persistent challenges in applied linguistics and educational equity research. In Malaysia, where 19 distinct sub-ethnic groupings across three primary tribal groups, collectively known as Orang Asli, navigate compounding linguistic, socioeconomic, and cultural barriers to formal education, the challenge is particularly acute. Despite decades of national educational reform, including the Malaysia Education Blueprint 2013–2025 and the adoption of the Common European Framework of Reference for Languages (CEFR), Orang Asli pupils continue to be disproportionately concentrated in the lowest performance bands of national assessments (Ministry of Education Malaysia, 2013). Existing literature consistently identifies this underachievement as a structural phenomenon rather than an individual deficit, rooted in the mismatch between the indigenous habitus and the capital valued by the formal educational field (Bourdieu, 1986).

The Kensiu, a Semang (Negrito) subgroup residing in the Baling district of Kedah, represent one of the smallest and most linguistically isolated indigenous communities in Peninsular Malaysia. Unlike other Orang Asli populations that may have greater exposure to national education systems, the Kensiu navigate a unique Triple Language Hurdle, transitioning from their Mon-Khmer mother tongue (L1 Kensiu) through the national language (L2 Bahasa Malaysia) to acquire English (L3). This trilingual challenge, occurring within a single school context and without corresponding home support, creates a qualitatively different and more severe barrier to L3 literacy acquisition than that experienced by mainstream Malaysian learners.

Existing research on Orang Asli education has overwhelmingly adopted a deficit framework, focusing on what pupils lack rather than on what

cultural assets they possess (Nicholas, 2005; Lye, 2011). This framing has contributed to pedagogical approaches that are incongruent with indigenous habitus, effectively marginalizing pupils' rich embodied capital, their oral traditions, ecological knowledge, artistic practices, and communal narratives. Bourdieu's (1986) framework of cultural capital offers a more productive analytical lens, reframing the problem not as indigenous deficiency but as a structural mismatch between the type of capital pupils possess (embodied, culturally rich) and the type of capital valued by the formal school field (objectified, text-based, institutionalized).

In response to this structural gap, arts-based Culturally Responsive Pedagogy (CRP) has emerged in the literature as a promising mechanism for bridging the divide. By incorporating indigenous cultural artifacts and practices into language learning activities, arts-based CRP can activate learners' embodied capital and use it as a scaffold for acquiring the target language (Gay, 2010; Brouillette et al., 2014). Vygotsky's (1987) Sociocultural Theory (SCT) provides the complementary theoretical architecture, explaining how cultural tools, including artistic objects, mediate the cognitive process of language learning within the Zone of Proximal Development (ZPD). Together, Bourdieu's capital framework and Vygotsky's SCT offer a theoretically integrated basis for investigating how indigenous cultural assets can be systematically mobilized for English literacy acquisition.

Despite the growing body of literature supporting arts-based and culturally responsive approaches to language learning, empirical evidence specifically addressing indigenous L3 acquisition in the Malaysian context remains sparse. Existing studies tend to be qualitative,

focused on either mainstream Malaysian classrooms or non-indigenous multilingual populations, and rarely employ mixed-methods designs that can confirm both the mechanism and the magnitude of the pedagogical intervention (Wong Yee Wan & Tan Tjin Ai, 2023; Krishnasamy & Sharani, 2019). This study addresses that gap directly.

This paper reports on a mixed-methods investigation of the My Story Stones intervention, an eight-week arts-based CRP module designed specifically for the Kensiu context, implemented at SK Siong, the sole primary school serving the Kensiu community. The study evaluates how the intervention mobilizes embodied cultural capital as a scaffold for English literacy acquisition, measures the statistical impact on Performance Levels (TP) and engagement (Affective Filter), and explores the qualitative mechanisms through which this mobilization occurs. The findings offer empirical evidence that indigenous cultural capital, far from being an obstacle to formal literacy, can function as its most powerful catalyst when pedagogically activated.

2. Literature Review

Bourdieu's (1986) theory of cultural capital provides the foundational framework for understanding the structural barriers faced by indigenous pupils in formal education. Bourdieu identifies three forms of capital: embodied capital (durable dispositions, values, and practices absorbed through lived experience), objectified capital (physical cultural goods such as books, instruments, and tools), and institutionalized capital (recognized academic credentials and formal qualifications). Within any social field, specific forms of capital are valorized while others are devalued, creating what Bourdieu terms a Capital Mismatch for individuals whose habitus does not align with the dominant field norms. Applied to indigenous education, this framework illuminates how Orang Asli pupils enter the school field with substantial embodied capital, oral storytelling traditions, ecological knowledge systems, and artistic practices, that is not recognized as valid academic currency by the formal curriculum (Dika & Singh, 2002; Nicholas, 2005). The absence of objectified and institutionalized capital in the

home environment further compounds this mismatch, creating what this study terms the Readiness Gap: a structural disadvantage that is reproduced through schooling rather than remediated by it. Transforming embodied capital into school-valorized objectified capital, through activities that bridge indigenous knowledge and formal literacy, is therefore not merely a pedagogical strategy but an act of educational equity.

Complementing Bourdieu's structural framework, Vygotsky's (1987) Sociocultural Theory posits that all higher cognitive functions, including language acquisition, are mediated by cultural tools operating within social interactions. Mediation refers to the process by which physical or symbolic tools, language, objects, signs, scaffold the learner's movement from current to potential developmental levels within the Zone of Proximal Development (ZPD). In the context of L3 acquisition, mediation is essential for bridging the gap between the learner's indigenous linguistic habitus and the target language demands of the formal curriculum. Arts-based objects, when deployed as pedagogical tools, function as what Vygotsky (1987) terms semiotic mediators: physical artifacts that stabilize meaning, reduce cognitive load, and provide a concrete referent around which language can be constructed. The integration of SCT with Bourdieu's framework reveals how cultural tools drawn from the indigenous habitus, ecological artifacts, oral narratives, artistic objects, can serve as both affectively safe and cognitively productive mediators of L3 acquisition (Lantolf & Thorne, 2007). This theoretical integration forms the analytical spine of the present study.

Closely related to these theoretical underpinnings, third language (L3) acquisition research demonstrates consistently that the degree of typological distance between L1, L2, and L3 significantly influences the ease of target language acquisition (Cenoz, 2013). For the Kensiu, whose L1 (Mon-Khmer) is structurally distant from both L2 (Bahasa Malaysia) and L3 (English), this typological challenge is

compounded by the near-total absence of L3 input outside the school environment. Cummins' (2000) Common Underlying Proficiency (CUP) model suggests that strong L1 literacy provides a foundation for L2 and L3 acquisition. However, for communities where oral traditions are the primary mode of knowledge transmission, the CUP model requires adaptation: the transfer of cognitive-academic language proficiency may occur through oral and artistic modes rather than through text-based ones. Research on Orang Asli educational underachievement consistently identifies the absence of English exposure in the home environment as the primary predictor of low L3 literacy (Kementerian Pendidikan Malaysia, 2019; Nicholas, 2005). The present study contributes to this literature by operationalizing the Triple Language Hurdle as a measurable construct and demonstrating how arts-based CRP can systematically reduce its impact on English Performance Levels.

Building on these theoretical and empirical foundations, Gay's (2010) model of Culturally Responsive Pedagogy (CRP) posits that effective teaching must recognize and build upon the cultural strengths of learners rather than imposing a culturally alien curriculum. In language learning contexts, CRP aligns closely with Krashen's (1985) Affective Filter Hypothesis, which argues that emotional barriers, anxiety, low self-esteem, and lack of motivation, constitute the primary psychological barrier to language acquisition. Lowering the Affective Filter, by creating emotionally safe and culturally validating learning environments, is therefore a prerequisite for effective L3 acquisition (Krashen, 1985; Gay, 2010). The integration of arts into CRP offers a dual mechanism: it simultaneously activates embodied cultural capital and lowers the Affective Filter by replacing performance anxiety with creative ownership. Studies by Brouillette et al. (2014) and Greenfader et al. (2014) provide empirical evidence that arts-based pedagogy significantly improves oral language skills among learners from marginalized linguistic backgrounds. However, these studies are primarily conducted in Western, L2 contexts, with limited application to indigenous L3 learners in

Southeast Asia, a gap the present study addresses directly.

Furthermore, multimodal learning theory supports arts integration by demonstrating that learners who engage with material through multiple sensory modalities, visual, tactile, auditory, kinesthetic, demonstrate superior retention and application of target language vocabulary compared to single-mode instruction (Huang et al., 2022; Jewitt, 2008). The My Story Stones intervention operationalizes this multimodal principle by deploying painted stones as physical, tactile semiotic anchors that simultaneously engage visual and kinesthetic processing while providing a culturally familiar scaffold for English production. Taken together, the theoretical and empirical literature reviewed here converges on a clear directive: effective pedagogy for indigenous L3 learners must begin not with what pupils lack, but with what they already possess, and the task of education is to make that possession pedagogically visible.

3. Methodology

This study employs an Explanatory Sequential Mixed-Methods design (Creswell, 2014), the most appropriate design for studies that require quantitative data to establish the magnitude of an effect and qualitative data to explain the mechanisms underlying it. The design operates across three phases: Phase 1 (Quantitative Baseline), Phase 2 (Intervention Impact, quantitative and qualitative concurrently), and Phase 3 (Integration via Joint Display Analysis). This sequential architecture ensures that the statistical findings are not merely reported in isolation but are contextually enriched by qualitative thematic analysis, providing a robust and holistic account of cultural capital mobilization. The study was conducted at SK Siong, located in the Baling district of Kedah, the sole primary school serving the Kensiu Orang Asli community in the region. Unlike states such as Perak or Pahang, which have dedicated Orang Asli Model Schools (SMOA), Kedah lacks specialized indigenous school infrastructure. This means Kensiu pupils are

integrated directly into a mainstream classroom environment, competing with Malay L1 peers within the national curriculum, a context that intensifies the Triple Language Hurdle. A Total Population Sampling (Census) strategy was employed (N=50), encompassing all enrolled Kensiu pupils from Year 1 to Year 6. This approach was methodologically necessary: given the small, finite, and fully accessible population, any random sampling would have yielded a required sample size (n=48, calculated via Krejcie & Morgan, 1970) statistically equivalent to the total population. A census strategy therefore eliminated sampling bias entirely and ensured absolute population validity. Of the total enrollment, 44 pupils (n=44) constituted the valid analytical sample for survey and assessment instruments, as Year 1 pupils were excluded from self-report instruments due to cognitive readiness constraints. For the qualitative phase, purposeful intensity sampling (Creswell, 2012) yielded a stratified subsample of 10 pupils, five confirming cases (high growth, +2 TP) and five disconfirming cases (modest growth, +1 TP), selected to capture the full spectrum of the intervention's impact. The My Story Stones (MSS) intervention constitutes the core pedagogical instrument of this study. It is an eight-week arts-based CRP module designed specifically for the Kensiu linguistic and cultural context, developed in accordance with Gay's (2010) CRP principles and strategically mapping Kensiu ecological artifacts, stones, rivers, forest fauna, to Year 1–6 English KSSR learning standards. Prior to implementation, the module underwent a four-stage validation process comprising drafting (conceptualization against KSSR standards), expert validation by a panel of three specialists (educational psychologist, TESL expert, indigenous pedagogy practitioner), feasibility testing via a pilot study (n=10), and final refinement based on feedback. The eight-week intervention followed the Gradual Release of Responsibility Model (Pearson & Gallagher, 1983), structured into three phases: Phase 1 (Weeks 1–3) involved individual stone painting and poem drafting with teacher modeling vocabulary (the 'I do it' phase); Phase 2 (Weeks 4–6) focused on group collaboration on Jazz Chants and collaborative poetry, incorporating peer-led translanguaging as a

meaning negotiation strategy (the 'We do it' phase); and Phase 3 (Weeks 7–8) saw pupils independently engage in digital storytelling and performance, transforming their painted stones into English narratives (the 'You do it' phase). This scaffolded structure ensured progressive release of responsibility, allowing pupils to navigate the L1 → L2 → L3 pathway systematically. Four primary instruments were deployed across the study. The Social and Cultural Capital Questionnaire (SCCQ), adapted from Pishghadam et al. (2011), was reduced from 42 to 20 culturally relevant items using a 3-point Likert scale, validated through a back-translation protocol (Brislin, 1970) and expert review. The Classroom-Based Assessment (PBD), mandated by the Malaysian Ministry of Education and aligned with CEFR and KSSR standards, evaluated English proficiency across four skills (Listening, Speaking, Reading, Writing) on a Tahap Penguasaan (TP) scale of 1 to 6, administered as pre- and post-test measures. The Student Engagement in School Questionnaire (SESQ), adapted from Fredricks et al. (2004), measured engagement across three domains (Behavioral, Emotional, Cognitive) using a 3-point scale, culturally simplified and validated via back-translation. In addition, qualitative data were gathered through a Systematic Observation Checklist applied weekly across the eight-week intervention, Semi-Structured Individual Interviews (n=10), and Focus Group Discussions (n=10, groups of 4–6 participants).

Quantitative data were analyzed using IBM SPSS Statistics. Descriptive statistics profiled capital levels; Pearson Product-Moment Correlation (r) established baseline relationships between cultural capital and literacy performance; and Paired Sample t-Tests confirmed the statistical significance of pre- to post-intervention gains in both PBD and SESQ scores. Qualitative data were analyzed through Thematic Analysis following Braun and Clarke's (2006) six-phase framework, involving verbatim transcription, iterative manual coding, pattern identification, and theme construction. Integration of

quantitative and qualitative data was achieved in Phase 3 through Joint Display Analysis, presenting parallel datasets to assess convergence of evidence and confirm triangulation of findings. Ethical clearance was obtained from the Education Policy Planning and Research Division (EPRD) of the Ministry of Education Malaysia, the Kedah State Education Department (JPN Kedah), and the District Education Office (PPD Baling). Parental informed consent was obtained in both English and Bahasa Malaysia, and participant confidentiality was maintained throughout all phases through the assignment of student identification codes (S01–S50).

4. Findings

The findings are presented across three phases corresponding to the Explanatory Sequential Mixed-Methods design: Phase 1 establishes the quantitative baseline by confirming the Capital

Mismatch; Phase 2 reports both the quantitative impact of the My Story Stones intervention on literacy and engagement, and the five qualitative themes that emerged to explain its mechanisms; and Phase 3 integrates both data strands through Joint Display Analysis. Descriptive analysis of the SCCQ data ($n=44$) revealed a striking structural disparity across the three dimensions of cultural capital (Table 1). Embodied Capital, measuring indigenous identity, oral tradition, and artistic habitus, scored High ($M=2.62$, $SD=0.45$). In sharp contrast, Objectified Capital, measuring physical learning resources, scored Low ($M=1.25$, $SD=0.32$), as did Institutionalized Capital, which measured parental academic support and school-home interaction ($M=1.35$, $SD=0.41$). The Overall Capital Index was Moderate ($M=1.74$, $SD=0.38$).

Table 1 Descriptive Statistics of Cultural Capital Levels ($n=44$)

Capital Dimension	Mean (M)	SD	Interpretation
Embodied Capital (Identity/Values)	2.62	0.45	High
Objectified Capital (Books/Resources)	1.25	0.32	Low
Institutionalized Capital (Support)	1.35	0.41	Low
Overall Index	1.74	0.38	Moderate

Item-level analysis further illuminated the Capital Mismatch. The highest scoring items were exclusively Embodied: pride in Kensiu heritage (Item Q2, $M=2.85$), natural affinity for drawing and painting (Item Q6, $M=2.70$), and enjoyment of oral storytelling (Item Q1, $M=2.65$). Conversely, the lowest scoring items were exclusively Objectified and Institutionalized: access to English storybooks at home (Item Q8, $M=1.10$), availability of a dedicated study space (Item Q11, $M=1.15$), and parental homework support (Item Q14, $M=1.20$). The demographic baseline further contextualized this mismatch: 77.3% of pupils had zero English storybooks at home, 72.7% lacked a dedicated study space, 93.2% spoke exclusively Kensiu at home, and 0% of parents held tertiary qualifications. These figures confirm that the Kensiu habitus is not

educationally empty; it is rich in embodied culture but is profoundly deprived of the objectified and institutionalized resources valorized by the formal school field. A Pearson Product-Moment Correlation analysis between the Overall Cultural Capital Index (SCCQ) and the Pre-Test PBD scores yielded a statistically significant, strong positive correlation ($r=.682$, $p<.001$, $r^2=.465$) (Table 2). The r^2 value indicates that cultural capital levels account for 46.5% of the variance in baseline English literacy performance, a substantial proportion that provides powerful empirical support for the structural nature of the Capital Mismatch. This correlation directly establishes that the low objectified and institutionalized capital identified above is linked to suppressed literacy scores,

confirming the structural basis for the Capital Mismatch hypothesis.

Table 2 Pearson Correlation between Cultural Capital Index and Pre-Test English Literacy (n=44)

Variables	r	Sig. (p)
Cultural Capital Index × Pre-Test English Literacy (PBD)	.682	.000***

Note. *** $p < .001$ (2-tailed).

Turning to the intervention's impact, Table 3 presents the frequency distribution of English literacy Performance Levels (TP) before and after the My Story Stones intervention. In the Pre-Test, 23 pupils (52.3%) were concentrated in the struggling bands of TP 1 and TP 2. Post-intervention, this distribution shifted dramatically

upward: TP 1 was eliminated (0 pupils), and the percentage of pupils in the higher bands (TP 4–6) rose from 20.5% to 52.3%. This Step-Up pattern confirms that the intervention did not merely increase average scores but structurally lifted the entire attainment curve, with the most significant gains for the most vulnerable learners.

Table 3 Frequency Distribution of PBD Performance Levels: Pre-Test vs. Post-Test (n=44)

Performance Level (TP)	Pre-Test (f)	Pre-Test (%)	Post-Test (f)	Post-Test (%)
TP 1 (Very Limited)	11	25.00%	0	0.00%
TP 2 (Limited)	12	27.30%	9	20.50%
TP 3 (Satisfactory)	12	27.30%	12	27.30%
TP 4 (Good)	8	18.20%	13	29.50%
TP 5 (Very Good)	1	2.30%	9	20.50%
TP 6 (Excellent)	0	0.00%	1	2.30%

A Paired Sample t-Test confirmed the statistical significance of this literacy growth (Table 4). Mean literacy performance rose from $M=2.45$ ($SD=1.13$) at Pre-Test to $M=3.57$ ($SD=1.11$) at Post-Test ($t(43)=-23.21$, $p<.001$, $d=1.00$), representing a large effect size (Cohen, 1988). At the individual

level, 100% of the valid sample ($n=44$) recorded a positive improvement: 88.6% ($n=39$) improved by +1 TP and 11.4% ($n=5$) demonstrated accelerated growth of +2 TP, confirming the consistency and breadth of the intervention's impact across all ability levels.

Table 4 Paired Sample t-Test for English Literacy Performance ,PBD (n=44)

Assessment	N	M	SD	t	p	d	95% CI
Pre-Test (Baseline)	44	2.45	1.13	-23.21	.000***	1.00	[1.02, 1.22]
Post-Test (Post-Intervention)	44	3.57	1.11				

Note. *** $p < .001$ (2-tailed); $df=43$. Cohen's $d=1.00$ indicates a large effect size (Cohen, 1988). 95% CI refers to the mean difference between Post-Test and Pre-Test.

Regarding student engagement, the SESQ results demonstrated a robust and statistically significant improvement following the intervention

($t(43)=28.45$, $p<.001$, $d=4.20$), with mean scores rising from $M=1.58$ ($SD=0.38$) at Pre-Test to $M=3.24$ ($SD=0.41$) at Post-Test (Table 5). The

Cohen's *d* of 4.20 represents an exceptionally large effect size, confirming that the intervention produced a profound psychological transformation well beyond what statistical significance alone conveys. Domain-level analysis revealed that the Emotional Domain recorded the highest growth (+1.90), from *M*=1.55 to *M*=3.45. Item-level analysis further identified the most significant shifts in anxiety reduction ,with 'I feel scared when asked

to speak English' reversed from 93.2% agreement pre-intervention to majority disagreement post-intervention ,and in sense of safety, with 'I feel safe in this classroom' rising from *M*=1.20 to *M*=2.90. These findings confirm that the intervention specifically targeted the Affective Filter, transforming the classroom from a site of linguistic threat to a site of cultural ownership.

Table 5 Paired Sample t-Test for Student Engagement ,SESQ (n=44)

Assessment	N	M	SD	t	p	d	95% CI
Pre-Test (Baseline)	44	1.58	0.38	28.45	.000***	4.20	[1.54, 1.78]
Post-Test (Post-Intervention)	44	3.24	0.41				

Note. *** *p*<.001 (2-tailed); *df*=43. Cohen's *d*=4.20 indicates an exceptionally large effect size (Cohen, 1988). 95% CI refers to the mean difference between Post-Test and Pre-Test.

Thematic analysis of observation field notes, semi-structured interview transcripts (*n*=10), and focus group discussion data (*n*=10) yielded five emergent themes that explain the mechanisms by which the My Story Stones intervention mobilized cultural capital and reduced the Affective Filter. Table 6 maps these themes to their corresponding research objectives and data sources.

Table 6 Summary of Emergent Themes by Research Objective and Data Source

Theme	Description	Research Objective	Data Source
1	The Stone as Semiotic Anchor	RO4: Mobilization Mechanism	Systematic Observations
2	Peer-Led Translanguaging (L1→L2→L3 Pathway)	RO4: Mobilization Mechanism	Systematic Observations
3	Safety in Cultural Familiarity	RO5: Affective Filter	Individual Interviews
4	Harmonizing Habitus and Field (Bridging Two Worlds)	RO6: Perceptions	Focus Group Discussions
5	From Exclusion to Appropriation (Acceptance of Pedagogy)	RO6: Perceptions	Focus Group Discussions

The first emergent theme ,the Stone as Semiotic Anchor ,was consistently evident in observations demonstrating that painted stones functioned as physical objects stabilizing abstract English vocabulary by linking a concrete, culturally familiar artifact to a new linguistic label. In the early phases

of the intervention, pupils used the stone to hold a thought while searching for the English word. As recorded in field notes from Week 2: 'Pupil P4 held the stone tightly and looked at the painting of the fish. He whispered 'Tkan' (Malay) and then asked the teacher, 'Teacher, fish?'

When he wrote the word 'Fish', he placed the stone next to the paper and tapped it' (Observation Field Notes, Week 2, Individual Phase). As the intervention progressed, the semiotic anchoring evolved from single-word recall to sentence-level syntax construction. By Week 5, pupils were using the stone's visual surface to sustain longer English structures without reverting to Kensiu grammar, as evidenced by Pupil S35 (Year 6) touching the patterns on her stone to produce 'The river is clean' and 'The river goes straight' (Observation Field Notes, Week 5, Group Phase). These layered observations confirm that the mobilization process begins with the cultural object itself, which serves to anchor the target language by reducing cognitive load and enabling L3 production.

Closely connected to the anchoring mechanism, the second theme, Peer-Led Translanguaging, documented the specific linguistic pathway through which the Triple Language Hurdle was navigated. Pupils rarely translated directly from L1 (Kensiu) to L3 (English). Instead, they consistently utilized L2 (Bahasa Malaysia) as a strategic bridge, a translanguaging space that enabled meaning negotiation before English production. Field notes from Week 4 captured this complete cycle: a group first discussed a story in Kensiu, then summarized in Malay ('Kita kena cakap pasal hantu tu takut', 'We have to say the ghost is scary'), before collaboratively producing the English rhyme 'Scary ghost, scary ghost, in the tree' (Observation Field Notes, Week 4, Group Phase). By the Performance Phase, peer correction followed the same L1→L2→L3 pathway, with more proficient pupils using L2 (Malay) to correct peers' English pronunciation rather than reverting to L1 (Kensiu). This evidence confirms that the arts-based intervention worked with the pupils' linguistic repertoire rather than against it, exploiting the L2 bridge to make the leap to L3 navigable.

The third theme, Safety in Cultural Familiarity, emerged from interview data revealing that the primary driver of Affective Filter reduction was not the novelty of arts activities, but the psychological safety provided by culturally owned content. In standard English lessons, pupils reported high linguistic anxiety rooted in fear of public error and evaluation. This theme was articulated most

explicitly by Respondent S24 (Year 4): 'Usually, if I stand up to read the book, my hands shake. I am scared everyone looks at me. But when I hold the stone, I look at the stone. I felt brave holding the stone. It is not like a book. It is like playing but speaking English.' Similarly, Respondent S08 stated: 'If I read the textbook, I am scared I say the word wrong. The teacher will correct me. But this is my stone. I painted it. So, I am the boss of this story. I am not scared to talk because I know what the picture means.' These responses demonstrate that cultural familiarity and ownership of narrative constitute the core mechanism through which the Affective Filter was lowered, not merely the sensory engagement of arts, but the act of validated identity performance.

The fourth theme, Harmonizing Habitus and Field, emerged from FGD data revealing that pupils perceived the intervention as bridging the gap between their indigenous life world and the demands of the school field. Both lower primary (Group A, Year 1–3) and upper primary (Group B, Year 4–6) pupils reached a consensus that the stones made the school environment feel familiar rather than alien. Group B articulated this convergence as follows: 'At home we look for stones. At school we paint stones. It makes the school feel like home. We don't have to leave our Kensiu life outside the gate. Usually, school is for Pensil (Pencil), but this time school was for Batu (Stone).' Group A added: 'Usually, inside the class is for Orang Luar (Outsiders) things. But the stones are Orang Kita (Our People's) things. When I hold the stone, I don't feel like I want to run away. I feel safe.' These dual-group responses confirm that the intervention created a Permeable Curriculum, one in which the indigenous habitus had a legitimate place within the formal educational field, directly addressing Bourdieu's (1986) concept of field access.

The fifth and final theme, From Exclusion to Appropriation, captured the collective transformation in the Kensiu pupils' relationship with English literacy. Historically, the community perceived English as a tool of symbolic exclusion. The FGD data documented

a clear shift toward appropriation, as evidenced by Group A's consensus: 'English is usually for other people. But with the stones, the English tells our story. So, we like it. We are not borrowing their words; we are using words to talk about our pictures.' Group B reinforced this with equal clarity: 'If we read the textbook, we just copy what the teacher says. But with the stone, we are the Tuan (Master) of the story. We decide what the stone says. Even if the English is broken, the story is ours.' This cross-group convergence, confirmed through data saturation, demonstrates that the My Story Stones intervention transformed the learners' relationship with English from passive borrowers of a foreign code to active owners of their own narrative, representing the highest level of cultural capital mobilization.

Joint Display Analysis of quantitative and qualitative datasets confirmed the convergence of evidence across all research objectives. The statistical elimination of TP 1 (quantitative) was explained qualitatively by the Semiotic Anchor mechanism (Theme 1) and Peer-Led Translanguaging (Theme 2), which enabled pupils to produce English at a level previously inaccessible. The significant SESQ gains in the Emotional Domain (quantitative) were directly explained by the Safety in Cultural Familiarity theme (Theme 3), confirming Krashen's (1985) Affective Filter model. The community-level acceptance captured in Themes 4 and 5 (qualitative) extends the quantitative findings, suggesting that the intervention's impact was not merely cognitive but ontological, reshaping the pupils' sense of themselves as legitimate participants in the English-language field. Together, these converging datasets confirm that arts-based CRP, grounded in Bourdieu's and Vygotsky's frameworks, successfully transformed embodied indigenous capital into scholastic currency.

5. DISCUSSION

The findings of this study make several interconnected contributions to the literature on indigenous L3 acquisition, cultural capital theory, and arts-based pedagogy. Taken together, they constitute what the present study terms the Cultural Capital Mobilization Model: a three-stage process in

which indigenous embodied capital is first recognized (Stage 1: Baseline Mismatch), then activated as a semiotic scaffold (Stage 2: Mediation), and finally transformed into institutionalized scholastic currency (Stage 3: Equity Achievement).

First and foremost, the empirical confirmation of the Capital Mismatch ($r=.682$, $p<.001$, $r^2=.465$) provides the most rigorous quantitative evidence to date, within a Malaysian indigenous context, that structural capital deprivation, not cognitive inability, is the primary predictor of English literacy failure among Orang Asli pupils. The finding that cultural capital levels alone account for 46.5% of the variance in baseline literacy performance is a theoretically significant result. It extends Bourdieu's (1986) framework beyond its original European sociological context and validates it empirically in a Southeast Asian indigenous multilingual setting. Critically, it reframes the problem of Kensi underachievement from an internal, deficit-based narrative to an external, structural one, a shift with profound implications for how educational policy and pedagogy are designed for indigenous communities.

Proceeding from this structural diagnosis, the large effect size produced by the My Story Stones intervention on English literacy ($d=1.00$) and engagement ($d=4.20$) speaks to a finding that is not merely statistically significant but educationally transformative. A Cohen's d of 1.00 for literacy means the average post-intervention pupil outperformed 84% of pre-intervention peers, a gain that eliminates the lowest performance band entirely in a single eight-week cycle. These effect sizes exceed those typically reported in arts integration studies (Brouillette et al., 2014; Greenfader et al., 2014), suggesting that the combination of ecological artifact, indigenous narrative, and peer-led translanguaging creates a uniquely powerful scaffold for marginalized L3 learners, one that goes beyond what either arts-based or CRP approaches can achieve independently.

The study further extends Vygotsky's (1987) Sociocultural Theory by demonstrating that

semiotic mediation can operate through indigenous ecological objects ,not only conventional academic tools. The Semiotic Anchor mechanism documented in Theme 1 shows that the stone functioned simultaneously as a cognitive load-reducer, a confidence scaffold, and a cultural validator ,a three-dimensional mediational role not previously documented in the L3 indigenous acquisition literature. This finding advances the theoretical understanding of how ZPD scaffolding can be culturally situating rather than culturally neutral, and has direct implications for how teachers working with indigenous populations might select and deploy mediational tools.

Equally significant is the translanguaging pathway documented in Theme 2 (L1 Kensiu → L2 Malay → L3 English), which provides the first empirical validation of García and Wei's (2014) translanguaging theory in an Orang Asli L3 context. The consistent and systematic use of L2 (Bahasa Malaysia) as a strategic cognitive bridge demonstrates that the Triple Language Hurdle is navigable when pedagogy works with learners' full linguistic repertoire rather than against it. This finding has direct implications for English-Only instructional policies, which this study's evidence suggests may function as symbolic violence for indigenous L3 learners by severing the very linguistic bridges that make L3 production possible.

In addition to these cognitive and linguistic contributions, the Affective Filter findings (Themes 3, 4, and 5) refine Krashen's (1985) model in an important direction. The qualitative data shows that what lowered the Affective Filter was not a generic reduction in anxiety but specifically the experience of cultural ownership ,the feeling that the English language was now being used to tell their story rather than someone else's. This distinction between anxiety reduction and ownership-based motivation aligns with Norton's (2000) theory of investment and Self-Determination Theory (Ryan & Deci, 2000), both of which emphasize that intrinsic motivation rooted in identity validation produces more durable language learning outcomes than extrinsic rewards or external pressure.

The study's limitations should be acknowledged transparently. The total population census design,

while methodologically rigorous within SK Siong's bounded system, limits direct generalizability to other Orang Asli sub-groups with different linguistic profiles (e.g., Semai, Temiar, or Proto-Malay communities). The eight-week intervention demonstrates significant value-added gains, but cannot establish whether these improvements are sustained over an academic year once the standard curriculum resumes. Furthermore, the study was conducted by researchers external to the Kensiu community, and while ethical protocols were strictly observed, future participatory action research designs would deepen the community's ownership of the research process itself. Future research should therefore employ longitudinal designs, comparative tribal studies across Orang Asli subgroups, and teacher habitus investigations to address these methodological gaps and consolidate the transferability of the Cultural Capital Mobilization Model.

6. Conclusion

This study demonstrates that the cultural assets of the Kensiu Orang Asli ,their ecological knowledge, artistic practices, and oral traditions ,are not obstacles to English literacy acquisition but, when pedagogically activated through arts-based CRP, constitute its most powerful scaffold. The My Story Stones intervention transformed embodied indigenous capital into scholastic currency, eliminating the lowest performance band (IP 1), producing statistically significant and practically large literacy gains ($t(43)=-23.21$, $p<.001$, $d=1.00$), reducing the Affective Filter with an exceptionally large effect ($t(43)=28.45$, $p<.001$, $d=4.20$), and generating a collective and enduring sense of ownership over the English language among a community for whom this language had previously been experienced as exclusively foreign and exclusionary.

The Cultural Capital Mobilization Model proposed here offers a three-stage framework ,Baseline Mismatch, Semiotic Mediation, and Equity Achievement ,that extends well beyond the Kensiu context and can be applied to other indigenous and marginalized communities

navigating multiple language barriers within postcolonial education systems. For educational policymakers, the findings provide empirical justification for embedding CRP principles into the national curriculum frameworks for Orang Asli schools, moving decisively beyond deficit-remediation models toward asset-activation approaches aligned with the Malaysia Education Blueprint's equity aspirations. For TESL practitioners working with indigenous or marginalized multilingual communities, the study offers a replicable, validated pedagogical module that is theoretically grounded, culturally safe, and implementable within standard curriculum timeframes and resource constraints. Ultimately, this study argues that educational equity for indigenous communities does not require indigenous learners to abandon their cultural capital in exchange for academic recognition. Rather, it requires educational systems to recognize that the stones these pupils carry, the stories, the knowledge, the identity, are already the currency they need. The task of culturally responsive

pedagogy is simply to make that currency visible, and valued, in the classroom.

Declaration of Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Acknowledgements

The authors wish to thank the pupils, teachers, and community of SK Siong, Baling, Kedah, for their generous participation and cooperation throughout the study. Appreciation is also extended to the Education Policy Planning and Research Division (EPRD) and the Kedah State Education Department (JPN Kedah) for their institutional support and ethical clearance.

References

- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). Greenwood.
- Bourdieu, P. (1991). *Language and symbolic power*. Harvard University Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216. <https://doi.org/10.1177/135910457000100301>
- Brouillette, L., Childress-Evans, K., Hinga, B., & Farkas, G. (2014). Increasing engagement and oral language skills of ELLs through the arts in the primary grades. *Journal for Learning Through the Arts*, 10(1), 1–24.
- Cenoz, J. (2013). The influence of bilingualism on third language acquisition: Focus on multilingualism. *Language Teaching*, 46(1), 71–86. <https://doi.org/10.1017/S0261444811000218>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire*. Multilingual Matters.
- Dika, S. L., & Singh, K. (2002). Applications of social capital in educational literature: A critical synthesis. *Review of Educational Research*, 72(1), 31–60. <https://doi.org/10.3102/00346543072001031>
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109. <https://doi.org/10.3102/00346543074001059>
- García, O. (2009). *Bilingual education in the 21st century: A global perspective*. Wiley-Blackwell.

- García, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. Palgrave Macmillan.
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). Teachers College Press.
- Greenfader, C. M., Brouillette, L., & Farkas, G. (2014). Effect of a performing arts program on the oral language skills of young English learners. *Reading Research Quarterly*, 50(2), 185–203. <https://doi.org/10.1002/rrq.90>
- Huang, Y., Zhang, Z., Yu, J., Liu, X., & Huang, Y. (2022). English phrase learning with multimodal input. *Frontiers in Psychology*, 13, Article 828022. <https://doi.org/10.3389/fpsyg.2022.828022>
- Jewitt, C. (2008). Multimodality and literacy in school classrooms. *Review of Research in Education*, 32(1), 241–267. <https://doi.org/10.3102/0091732X07310586>
- Kementerian Pendidikan Malaysia. (2019). *Laporan tahunan Orang Asli*. Ministry of Education Malaysia.
- Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. Longman.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
- Krishnasamy, H. N., & Sharani, D. M. (2019). The influence of cultural capital and initiatives towards improving the Indigenous pupils' English literacy performance. *Pan-Commonwealth Forum Proceedings*, 4, 18–26.
- Lantolf, J. P., & Thorne, S. L. (2007). Sociocultural theory and second language learning. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition* (pp. 201–224). Lawrence Erlbaum.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
- Lye, T. P. (2011). The Orang Asli of Peninsular Malaysia. In K. M. Endicott (Ed.), *Malaysia's original people: Past, present and future of the Orang Asli* (pp. 15–40). NUS Press.
- Ministry of Education Malaysia. (2013). *Malaysia education blueprint 2013–2025*. Kementerian Pendidikan Malaysia.
- Nicholas, C. (2005). The Orang Asli: First people sidelined. In C. Nicholas & R. Singh (Eds.), *Indigenous peoples of Asia* (pp. 145–162). Asian Cultural Forum on Development.
- Norton, B. (2000). *Identity and language learning: Gender, ethnicity and educational change*. Longman.
- Norton, B. (2013). *Identity and language learning: Extending the conversation*. Multilingual Matters.
- Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8(3), 317–344. [https://doi.org/10.1016/0361-476X\(83\)90019-X](https://doi.org/10.1016/0361-476X(83)90019-X)
- Pishghadam, R., Noghani, M., & Zabihi, R. (2011). An application of a questionnaire of social and cultural capital to English language learning. *English Language Teaching*, 4(3), 151–157.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Vygotsky, L. S. (1987). Thinking and speech. In R. W. Rieber & A. S. Carton (Eds.), *The collected works of L. S. Vygotsky: Vol. 1. Problems of general psychology* (pp. 39–285). Plenum Press.
- Wong Yee Wan, E., & Tan Tjin Ai, J. (2023). Early second language learning and arts integration in Malaysian multicultural context: A sociocultural perspective. *Malaysian Journal of Social Sciences and Humanities*, 8(5), e002297. <https://doi.org/10.47405/mjssh.v8i5.2297>