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Developing the *Malaqbiq Tau Mandar* Character Model Based on Lecturers' Profiles of Understanding and Readiness

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Abstract
The integration of Mandar cultural values into pre-service teacher education remains limited because existing character education practices have not translated *Malaqbiq Tau Mandar* (MTM) values into a systematic model responsive to lecturers' varying levels of understanding and readiness. This study examined differences in MTM model development needs across lecturer profiles. A descriptive-comparative cross-sectional design was used to capture and compare these needs. Ninety-eight lecturers from the Faculty of Teacher Training and Education, *Universitas Sulawesi Barat*, were selected through purposive sampling because of their direct involvement in pre-service teacher education. Data were collected using a Likert-scale questionnaire covering model design, instructional resources, and character evaluation, and were analysed using descriptive statistics, reliability testing, one-way ANOVA, and Tukey HSD (Honest Significant Difference). Significant differences emerged across all three dimensions. Lecturers with stronger MTM understanding and greater implementation readiness consistently reported higher development needs, while instructional resources showed the strongest differentiation among groups. These findings indicate that MTM implementation requires differentiated support, including conceptual orientation, adaptable instructional

resources, and authentic character assessment. The study provides an empirical basis for a novel, culturally grounded, and readiness-responsive MTM model that can strengthen culturally responsive teacher education and support the professional character formation of pre-service teachers.

Keywords: malaqbiq tau mandar, pre-service teacher education, lecturer readiness, instructional resources, character education

INTRODUCTION

The imperative of teacher education in addressing pluralism has evolved beyond knowledge transmission to cultivating culturally responsive, ethical, and reflective dispositions. Cultural competence strengthens educators' self-efficacy and fosters students' sense of belonging in diverse environments (Ialuna et al., 2024; Kilicoglu et al., 2023). Prospective teachers remain inadequately prepared because inclusion and diversity are often marginalized as supplementary materials rather than embedded as core curricular components (Leung et al., 2024). Learning fundamentally takes place within a sociocultural context, making the understanding of how students interpret experiences and construct identities an essential pedagogical practice developed through contextual integration and guided reflection (Romijn et al., 2021). Transitioning to culturally responsive pedagogy requires viewing diversity as a pedagogical asset (Liao et al., 2021), embedded explicitly within syllabi to dictate orientation, content, and learning experiences (Martín-Gutiérrez et al., 2025). Empirical exposure and critical reflection must therefore permeate the entire instructional design rather than serve as peripheral activities (Prilutskaya et al., 2025).

Culturally responsive competence develops through sustained dialogue, interaction, and critical reflection. Field experiences with diverse students enhance prospective teachers' empathy, perspective-taking, and humane interpersonal relationships (Martin-Beltran et al., 2023). Yet, without a conceptual framework, direct experience is insufficient, especially when addressing discrimination and positionality. Cross-national learning experiences show that meaningful professional growth depends heavily on program characteristics and meaning-making processes (Costa et al., 2023; Huang et al., 2023). Furthermore, mere acceptance of diversity does not guarantee consistent pedagogical practice; misalignments between teachers' beliefs and instructional actions, including unconsciously demeaning communication, persist (Kehl et al., 2024). Culturally grounded models must therefore transcend superficial cultural symbols to foster critical awareness of intersecting identities and marginalization practices (de Groot et al., 2023). Effective teaching beliefs encompass community understanding, reflective dialogue, collaborative learning, and responsive mentoring (Bostwick et al., 2025).

The success of culturally grounded education also relies heavily on faculty readiness and institutional synergy. Professional development demands autonomy, policy support, and an organizational culture that empowers educators to transform their practices (Pasternak et al., 2023). Educators require differentiated support tailored to their existing knowledge of learners, culture, and diversity management (Wong, 2026). The transition from cultural understanding to practical execution necessitates frameworks connecting values to concrete objectives, learning activities, and assessments. Professional development through critical reading and syllabus transformation helps

lecturers translate culturally responsive aspirations into tangible instructional designs (Cameron et al., 2024). Culturally responsive tools adapted to local contexts further strengthen professional competence (Woodroffe et al., 2025), provided these approaches are differentiated based on educators' varying readiness levels (Funk & Woodroffe, 2024). Additionally, incorporating local knowledge must be paired with practical implementation guidelines to ensure relevance within the learning process (Photo & McKnight, 2024).

Current culturally responsive models tend to prioritize global intercultural awareness or generic pedagogical inclusion, yet they frequently fail to integrate indigenous, character-based philosophical frameworks governing interpersonal ethics. To address this, the philosophy of *Malaqbiq Tau Mandar* (MTM) offers a novel and strategic foundation for pre-service teacher education. Originating from West Sulawesi, MTM is a profound value framework embodying dignity, courtesy, integrity, and social responsibility. Its core values encompass *malaqbiq pau* (quality of speech), *malaqbiq kedzo* (quality of conduct), *malaqbiq sipaq* (virtuous character), and *malaqbiq gauq* (socially responsible action) (Ramadhana et al., 2023). The MTM model's primary pedagogical contribution lies in its dual capacity to foster both intercultural competence and robust character education. By embedding MTM, higher education institutions equip prospective teachers with the ethical grounding necessary for culturally responsive teaching, enabling them to model dignified communication, exemplary conduct, and social concern.

The internalization of MTM transcends moral exhortation; its values must be experienced, applied to professional dilemmas, and continuously reflected upon through targeted teacher education interventions (Pevec-Zimmer et al., 2024; Ulbricht et al., 2024). Consequently, MTM philosophical values are systematically translated into three developmental dimensions: model design, instructional resources, and character evaluation. Specifically, *malaqbiq pau* and *malaqbiq kedzo* inform the model design and instructional resources by dictating the interaction patterns, instructional syntax, and communication ethics embedded in Semester Learning Plans and teaching materials. Concurrently, *malaqbiq sipaq* and *malaqbiq gauq* provide the conceptual basis for character evaluation, moving beyond knowledge-based testing to assess cultural awareness through demonstrated practice, responses to contextualized classroom situations, and reflective engagement (Kardel et al., 2025).

Previous studies have examined intercultural competence, self-efficacy, field experience, critical reflection, professional development, and cultural integration within the curriculum. These findings provide an important foundation for developing a pedagogical architecture capable of operationally integrating MTM values into pre-service teacher education. The primary gap lies in the need to formulate a model that is systematic, measurable, contextually grounded, and adaptive to varying levels of faculty readiness. Such a model should encompass learning objectives, core values, instructional syntax, interaction patterns, Semester Learning Plans, teaching materials, case studies, worksheets, reflective activities, implementation guidelines, character assessment rubrics, and feedback procedures. Based on the identified gap, this study aims to describe the developmental needs of the MTM model across the dimensions of model design, instructional resources, and character evaluation.

METHOD

Research Design

This study employed a descriptive-comparative cross-sectional quantitative design to map and compare the developmental needs of the *Malaqbiq Tau Mandar* (MTM) model across lecturers' profiles of understanding and readiness (Maier et al., 2023; Qudratuddarsi et al., 2024). The cross-sectional nature provided a snapshot of respondents' needs at a specific point in time without establishing causal relationships (Maier et al., 2023). A needs analysis identified development priorities for designing the pedagogical model and its components (Choi & Park, 2024). Qualitative interview data collected concurrently are excluded here and will be reported separately during the subsequent model development phase, adhering to transparent reporting practices for mixed methods (Peters & Fàbregues, 2024; Zhou et al., 2024).

Study Setting and Respondents

This study was conducted at the Faculty of Teacher Training and Education, *Universitas Sulawesi Barat* on May to June 2026. This study surveyed 98 lecturers via purposive sampling. Respondents self-classified into three nominal categories representing their understanding and readiness profiles: (1) good understanding and ready to implement (n = 36); (2) developing understanding and willing to implement (n = 39); and (3) basic understanding and not yet ready to implement (n = 23). These profiles served as the independent grouping variable.

Research Instrument

A 20-item questionnaire utilizing a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) assessed MTM model development needs across three operational variables. These statements were grouped into three dimensions, as presented in Table 1.

Table 1. Operationalization of the Research Variables

Variable	Indicators	Item Numbers	Number of Items
Model design needs	Need for a specific model, clarity of objectives, core values, instructional syntax, discussion and reflection activities, integration of teacher education theory with local culture, instructional interactions, and model flexibility	22–29	8
Instructional resource needs	Need for an MTM-integrated Semester Learning Plan, teaching materials or modules, case studies, student worksheets, reflection sheets, and implementation guidelines	30–35	6
Character evaluation needs	Assessment of knowledge, attitudes, and behavior; character assessment rubrics; behavioral indicators; continuous assessment; self-reflection; and lecturer feedback	36–41	6

Instrument validation extended beyond reliability to include content and construct validity. Content validity was established through expert review to ensure alignment with the four core MTM values shaping student character (*malaqbiq pau, malaqbiq kedzo, malaqbiq sipaq,* and *malaqbiq gauq*) (Ramadhana et al., 2023). Construct validity was secured by grounding the three dimensions in established frameworks: model design integrates cultural and pedagogical elements (Bostwick et al., 2025; Cameron et al., 2024;

Romijn et al., 2021), instructional resources operationalize these concepts into practical tools (Woodroffe et al., 2025), and character evaluation focuses on contextualized behavioural evidence (Kardel et al., 2025). The internal consistency of the dimensional structure was subsequently confirmed using Cronbach's alpha (Shaw, 2021). The use of the alpha coefficient should also be accompanied by a clear specification of the dimensional structure and item content, as a high alpha value does not automatically demonstrate that all items measure the same underlying construct (Hussey et al., 2025).

Data Collection and Analysis

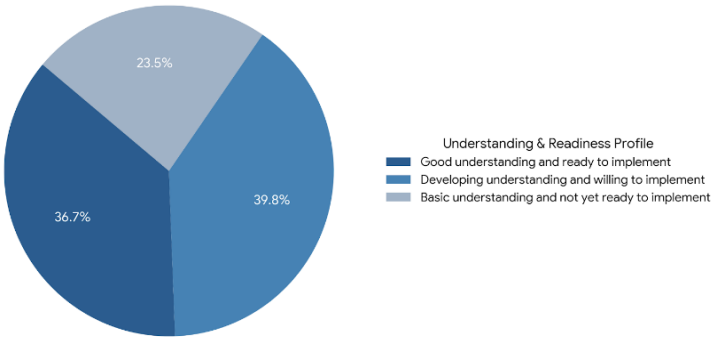
Following informed consent, data were collected via Google Forms and printed copies. Analysis was conducted using jamovi version 2.7 (The Jamovi Project, 2026). The analytical procedure proceeded systematically, descriptive statistics first summarized the data, followed by one-way Analysis of Variance (ANOVA) to compare the three independent lecturer profiles. Assumption testing was mandatory prior to ANOVA. The Shapiro-Wilk test verified data normality, while Levene's test evaluated the homogeneity of variances (Levene, 1960). Because assumptions were satisfied, a conventional one-way ANOVA was executed, accompanied by Tukey's honestly significant difference (HSD) for post hoc pairwise comparisons (Tukey, 1949). To control Type I error rates across the three hypothesis tests, a Bonferroni correction adjusted the significance threshold to $\alpha = 0.0167$ (Armstrong, 2014; Bland & Altman, 1995). Had the homogeneity assumption been violated, Welch's ANOVA and the Games–Howell post hoc test would have been utilized (Agbangba et al., 2024).

FINDINGS AND DISCUSSION

Findings

Lecture' Profiles of Understanding and Readiness

This study involved 98 lecturers from the Faculty of Teacher Training and Education, *Universitas Sulawesi Barat*. The respondents were classified according to their understanding of and readiness to integrate *Malaqbiq Tau Mandar* (MTM) values into pre-service teacher education. A total of 36 lecturers, representing 36.7% of the respondents, reported having a good understanding of MTM and being ready to implement it. The largest group comprised 39 lecturers, or 39.8% of the respondents, whose understanding was still developing but who were willing to implement MTM. Meanwhile, 23 lecturers, accounting for 23.5% of the respondents, had only a basic understanding of MTM and were not yet ready to implement it.



Source: Research data processed by the authors, 2026

Figure 1. Distribution of Respondents by Lecturers' Profiles of Understanding and Readiness

Figure 1 indicates that most respondents possessed an initial foundation for integrating MTM into university courses. When the group that was ready to implement MTM was combined with the group whose understanding was still developing, 75 lecturers, or 76.5% of the respondents, had at least expressed a willingness to implement MTM. This condition represents important institutional capital, as the development of culturally grounded education requires the active engagement of educators rather than merely the availability of conceptual frameworks or formal policies.

Internal Consistency of the Instrument

Prior to the descriptive and inferential analyses, the internal consistency of the items was examined using Cronbach's alpha coefficient. The results are presented in Table 2.

Table 2. Internal Consistency of the Instrument Measuring the Developmental Needs of the MTM Model

Dimension	Number of Items	Cronbach's Alpha
Model design needs	8	0.913
Instructional resource needs	6	0.912
Character evaluation needs	6	0.902
All needs-related items	20	0.955

Source: Research data processed by the authors, 2026.

The alpha coefficients for the three dimensions ranged from 0.902 to 0.913, while the coefficient for all items reached 0.955. These results indicate that the items within each dimension demonstrated high internal consistency and could therefore be combined to calculate dimension-level mean scores.

Overview of MTM Model Development Needs

The descriptive statistics presented in Table 3 reveal a consistent pattern across the three dimensions of need. Lecturers who had a good understanding of MTM and were ready to implement it consistently reported the highest mean needs scores.

Table 3. Descriptive Statistics for MTM Model Development Needs by Lecturer Profile

Needs Dimension	Lecturer Profile	*n*	*M*	*SD*
Model design	Good understanding and ready to implement	36	4.295	0.345
	Developing understanding and willing to implement	39	4.087	0.504
	Basic understanding and not yet ready to implement	23	3.440	0.367
Instructional resources	Good understanding and ready to implement	36	4.412	0.462
	Developing understanding and willing to implement	39	3.979	0.556
	Basic understanding and not yet ready to implement	23	3.370	0.359
Character evaluation	Good understanding and ready to implement	36	4.449	0.386
	Developing understanding and willing to implement	39	4.043	0.542
	Basic understanding and not yet ready to implement	23	3.543	0.436

Source: Research data processed by the authors, 2026.

Among lecturers who had a good understanding of MTM and were ready to implement it, all mean scores exceeded 4.20. Character evaluation recorded the highest mean score (M = 4.449), followed by instructional resources (M = 4.412) and model design (M = 4.295). These findings indicate that lecturers who were ready to implement MTM required not only a conceptual foundation but also regarded the availability of an evaluation system and operational instructional resources as highly important.

Assumption Testing and Between-Group Differences in Developmental Needs

Table 4 presents the results of the residual distribution analysis. The residuals for model design needs and instructional resource needs did not show significant departures from normality, with p = 0.138 and p = 0.151, respectively. For character evaluation needs, the normality test yielded p = 0.045. This departure was considered minor and was not accompanied by variance heterogeneity or extreme imbalance in group sizes. Additional analyses using procedures that are more robust to assumption violations produced the same conclusion regarding statistical significance. Therefore, conventional ANOVA was retained as the primary analytical procedure.

Table 4. Shapiro–Wilk Normality Test

Variable	*p*
Model design needs	0.138
Instructional resource needs	0.151
Character evaluation needs	0.045

Source: Research data processed by the authors, 2026

Levene's test indicated that the homogeneity of variance assumption was satisfied for model design needs (p = 0.143), instructional resource needs (p = 0.116), and character evaluation needs (p = 0.305) (Levene, 1960). Accordingly, between-group differences were analysed using conventional one-way ANOVA followed by Tukey's honestly significant difference (HSD) post hoc test (Tukey, 1949). Because three primary tests were conducted within the same family of hypotheses, the significance threshold was adjusted using the Bonferroni procedure to $\alpha = 0.05/3 = 0.0167$ to control the risk of Type I error (Bland & Altman, 1995; Armstrong, 2014). The ANOVA results are presented in Table 5.

Table 5. One-Way ANOVA Results for MTM Model Development Needs

Needs Dimension	Levene's *p*	*F*(2, 95)	*p*	η^2	Decision
Model design	0.143	30.057	< 0.001	0.388	Significant
Instructional resources	0.116	32.914	< 0.001	0.409	Significant
Character evaluation	0.305	26.768	< 0.001	0.360	Significant

Note: The significance threshold following the Bonferroni correction was α = 0.0167.
Source: Research data processed by the authors, 2026.

Table 5 demonstrates significant differences in model design, instructional resource, and character evaluation needs across lecturers' profiles of understanding and readiness. All p-values were below 0.001 and therefore remained statistically significant after applying the adjusted significance threshold of 0.0167. The eta-squared values indicated that lecturers' profiles of understanding and readiness were associated with 38.8% of the variance in model design needs, 40.9% of the variance in instructional resource needs, and 36.0% of the variance in character evaluation needs. The results of the pairwise group comparisons are presented in Table 6.

Table 6. Tukey HSD Post Hoc Test Results

Dimension	Group Comparison	Mean Difference	*p*	Decision
Model design	Ready – developing	0.209	0.086	Not significant
	Ready – not yet ready	0.855	< 0.001	Significant
	Developing – not yet ready	0.646	< 0.001	Significant
Instructional resources	Ready – developing	0.433	< 0.001	Significant
	Ready – not yet ready	1.043	< 0.001	Significant
	Developing – not yet ready	0.609	< 0.001	Significant
Character evaluation	Ready – developing	0.406	< 0.001	Significant
	Ready – not yet ready	0.906	< 0.001	Significant
	Developing – not yet ready	0.499	< 0.001	Significant

Source: Research data processed by the authors, 2026.

Discussion

MTM Model Design Needs

The ANOVA results revealed significant differences in MTM model design needs across lecturers' levels of understanding and readiness, $F(2, 95) = 30.057$, $p < 0.001$, $\eta^2 = 0.388$. Lecturers who understood MTM well and were ready to implement it reported the highest need ($M = 4.295$), followed by those with developing understanding ($M = 4.087$) and those with basic understanding who were not yet ready ($M = 3.440$). Tukey HSD analysis showed no significant difference between the ready and developing groups ($p = 0.086$), although both groups reported significantly greater needs than the not-yet-ready group. This pattern indicates that willingness to implement MTM may be sufficient to increase lecturers' awareness of the need for a structured model.

Both the ready and developing groups recognised the importance of clear objectives, core values, instructional syntax, reflective activities, dialogical interaction, and flexible application across courses. This finding aligns with Romijn et al. (2021), who emphasised that intercultural competence develops more effectively through contextualised, integrated, reflective, and practice-oriented learning. Therefore, the MTM model should not merely describe *malaqbiq pau, malaqbiq kedzo, malaqbiq sipaq,* and *malaqbiq gauq*, but should explain how these values guide learning activities, professional decision-making, and critical reflection.

This design should also integrate community knowledge, curriculum development, collaborative practice, reflective dialogue, and cultural mentoring, as proposed by Bostwick et al. (2025). Cultural symbols alone cannot ensure culturally grounded instruction because positive beliefs may not always correspond with actual classroom practices (Kehl et al., 2024). Local wisdom values must therefore be reflected in communication, ethical conduct, responsibility, integrity, and observable pedagogical behaviour.

Ramadhana et al. (2023) identified these four values as foundations of student character education. The present study extends this view by showing that their integration into pre-service teacher education requires a systematic and readiness-responsive design. Since teaching competence can be observed through lesson opening, core activities, classroom management, feedback, and lesson closure (Kasriyati et al., 2022), the MTM model should embed Mandar values within these practices.

MTM Instructional Resource Needs

Instructional resource needs showed the strongest differences across lecturer profiles, $F(2, 95) = 32.914$, $p < 0.001$, $\eta^2 = 0.409$. The ready group reported the highest mean score ($M = 4.412$), followed by the developing group ($M = 3.979$) and the not-yet-ready group ($M = 3.370$). All pairwise differences were statistically significant, with the largest gap found between the ready and not-yet-ready groups. This pattern indicates that greater MTM understanding and readiness are associated with stronger recognition of the need for operational resources, including MTM-integrated Semester Learning Plans, teaching materials, case studies, worksheets, reflection sheets, and implementation guidelines.

Cameron et al. (2024) showed that culturally responsive teaching becomes visible through changes in learning objectives, content, resources, and syllabus activities. Therefore, MTM values should be formally embedded in learning outcomes, assignments, classroom activities, and assessment rather than introduced incidentally. Contextualised case studies, worksheets, and reflection sheets can also help lecturers and students connect cultural concepts with communication conflicts, ethical issues, professional responsibilities, and pedagogical decisions.

This need for locally relevant resources is supported by Woodroffe et al. (2025), who found that culturally responsive tools can strengthen educators' reflection and professional practice. However, identical resources may not be equally effective for lecturers with different readiness levels. Prepared lecturers may adapt the materials independently, while less-prepared lecturers may apply them mechanically without understanding their cultural and pedagogical foundations.

Accordingly, instructional resources should be accompanied by institutional support, professional learning, collaboration, and continuous feedback, as emphasised by Pasternak et al. (2023). A differentiated resource system may include three levels: an orientation package introducing MTM values, adaptable examples of learning plans and instructional materials, and advanced guidelines for lecturers to develop course-specific MTM resources. This structure would bridge cultural theory and classroom practice while accommodating variations in lecturer readiness.

MTM-Based Character Evaluation Needs

Character evaluation needs differed significantly across lecturer profiles, $F(2, 95) = 26.768$, $p < 0.001$, $\eta^2 = 0.360$. The ready group reported the highest mean score ($M = 4.449$), followed by the developing group ($M = 4.043$) and the not-yet-ready group ($M = 3.543$). This finding shows that stronger MTM understanding increases lecturers' awareness of the need to assess actual character development, not only students' knowledge of cultural concepts.

MTM evaluation should cover knowledge, attitudes, and observable behaviour. Contextualised cases, videos, portfolios, observations, and reflections can assess how students respond to professional and cultural dilemmas (Kardel et al, 2025). Evaluation should also include continuous feedback and self-reflection because these processes strengthen pre-service teachers' awareness, self-efficacy, and critical reflection (Pevec-Zimmer et al., 2024; Ulbricht et al., 2024). Operational indicators may include respectful communication for *malaqbiq pau*, ethical conduct for *malaqbiq kedzo*, integrity and responsibility for *malaqbiq sipaq*, and care and social contribution for *malaqbiq gauq*.

CONCLUSION

This study advances the field of culturally responsive teacher education by establishing the foundational architecture for the *Malaqbiq Tau Mandar* (MTM) character model. Rather than merely preserving MTM as indigenous knowledge, this research demonstrates that translating these philosophical ethics into pre-service teacher education requires a systematic, multi-tiered pedagogical framework that is highly responsive to varying levels of faculty readiness. The primary contribution of this study lies in its evidence that the successful integration of localized character education depends on aligning conceptual frameworks, operational instructional resources, and authentic character evaluation with the specific developmental needs of educators. Theoretically, this study extends culturally grounded education models by explicitly linking indigenous character values, such as dignified communication, exemplary conduct, and social responsibility, directly to instructional design and evaluation dimensions. Practically, the findings carry significant implications for teacher education institutions, demonstrating that the implementation of the MTM model cannot rely on a standardized approach. Instead, institutions must provide conceptual orientation for faculty with a developing understanding while supplying adaptable, context-specific instructional resources for those ready to execute the model. Furthermore, the findings emphasize the necessity of shifting from traditional knowledge-based testing to authentic, behaviour-based assessments to genuinely evaluate pre-service teachers' cultural responsiveness and character development.

Despite its contributions, this study has limitations, particularly its cross-sectional design, which captures developmental needs at a single point in time and precludes causal inferences regarding how lecturer readiness might evolve during actual model implementation. Additionally, the reliance on self-reported questionnaire data from a single institution may limit the broader generalizability of the findings. Future research should focus on the applied development, validation, and empirical testing of the MTM model within diverse classroom settings. Longitudinal studies are highly recommended to evaluate the model's long-term impact on pre-service teachers' pedagogical practices and character formation, while incorporating qualitative observations and interviews would provide deeper insights into the complex dynamics and potential barriers of implementing indigenous character education in higher education.

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