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Reawakening the De Rama jewelry-making culture of Dauis, Bohol, Philippines: Its exploration of a Contextualized De Rama Unified Teaching Model

CIRUJALES, Ted Antoine T.[1]; INOCIAN, Reynaldo B.[2]; GALLEON, Joseph Sol T.[3]; REYES, Spencer P.[4]

[1] 0000-0003-4115-9264; St. Scholastica's Academy-Tabunok, Talisay City. Cebu, Philippines. cirujalested@gmail.com
[3] 0000-0003-2958-2027; Social Sciences Department, Cebu Normal University. Cebu City, Cebu, Philippines. inocianr@cnu.edu.ph.
[3] 0009-0004-7283-9726; College of Teacher Education, Cebu Normal University. Cebu City, Cebu, Philippines. gallonj@cnu.edu.ph.
[4] 0009-0000-6954-9577; Humanities Department, Cebu Normal University. Cebu City, Cebu, Philippines. reyess@cnu.edu.ph.

ABSTRACT

This study explores the De Rama Jewelry-making culture of Dauis, Bohol, as a foundation for the development of a Contextualized De Rama Unified Model of Teaching (CDRUMT). Utilizing a qualitative case study design and exploratory design, the researchers documented the traditional craft through purposive sampling and interviews with surviving a practitioner and cultural experts. Data gathered from interview and observation protocols were analyzed through documentary and semiotic analyses. Findings indicate that De Rama jewelry-making is a declining tradition characterized by unique designs such as *Nilusok, Binulak, Binaye,* and *Binukag,* necessitating urgent preservation efforts. To address this, the CDRUMT was developed to integrate local craftsmanship into the curriculum, aligning jewelry-making phases with pedagogical stages. This model provides a pragmatic framework for culture-based education, supporting national mandates for localization and contextualization to foster inclusive and culturally responsive learning environments.

RESUMEN

Este estudo explora a cultura de confecção de joias De Rama em Dauis, Bohol, como base para o desenvolvimento de um Modelo Unificado de Ensino De Rama Contextualizado (CDRUMT). Utilizando uma abordagem qualitativa de estudo de caso e um delineamento exploratório, os pesquisadores documentaram o artesanato tradicional por meio de amostragem intencional e entrevistas com uma praticante ainda viva e especialistas culturais. Os dados coletados por meio de entrevistas e observações foram analisados através de análises documentais e semióticas. Os resultados indicam que a confecção de joias De Rama é uma tradição em declínio, caracterizada por designs únicos como Nilusok, Binulak, Binaye e Binukag, o que exige esforços urgentes de preservação. Para abordar essa questão, o CDRUMT foi desenvolvido para integrar o artesanato local ao currículo, alinhando as fases de confecção de joias com as etapas pedagógicas. Este modelo fornece uma estrutura pragmática para a educação baseada na cultura, apoiando as diretrizes nacionais de localização e contextualização para promover ambientes de aprendizagem inclusivos e culturalmente responsivos..

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Introduction

Jewelry has historically symbolized prestige, power, authority, glamour, and beauty in various cultures worldwide. The art of jewelry-making is a testament to the rich cultural traditions of people from each country. In the Philippines, the tradition of jewelry-making dates back to the pre-colonial era, evidenced by the significant finds such as the 'Surigao treasures' in 1981 (Hontiveros, 2017). Filipinos, in this sense, exhibit a keen appreciation for the craft of jewelry-making, an integral facet of their arts and culture.

The arrival of the Spaniards in 1521 marked a significant encounter in history. Indigenous Cebuano people adorned in gold jewelry in their bodies were documented as reflected in the Boxer Codex (Souza & Turley, 2016); with *mga ngipong binansilang oro* (gold-plated teeth) associated with mortuary rituals (Rittershofer, 1937; Bersales, 2016; Estrella, 2021) catalyzed the evolution of the country's esteemed jewelry production industry. However, Estrella (2021) argued that these gold dental inlays among the Visayans are not only intended for mere ornamentation. but with their belief in gold as a mystical metal that connects them to a spiritual dimension. Among the high-status pre-colonial Visayans, the tradition of tooth ornamentation, known as “bansil,” symbolizes wealth and authority, as illustrated in Figure 1.

Figure 1.

Gold-plated ornaments of the pre-colonial Visayan

Note: gold plating and jewelry wearing (bansil) during the Pre-colonial Era in the Visayas, Philippines

https://prehispaniccebu.wordpress.com/2019/12/25/visayan-dentistry/

The link between jewelry-making culture and national curriculum needs is rooted in the intersection of cultural heritage, economics, and specialized instruction. While gold

remains a premier global commodity and a lucrative venture for artisans (Herzlich, 2025), its significance extends beyond commerce to become an indispensable element within the fabric of human culture. Philippine educational institutions acknowledge this importance by integrating the study of jewelry-making into culture-based curricula and instruction. This integration is vital for the successful implementation of national degree programs such as Bachelor of Culture and Arts Education, Bachelor of Arts in Fashion Designing, and Bachelor of Secondary Education majoring in Social Studies.

The said contextualization is in accordance to the current Teacher Education curriculum in the Philippines which is facing a reframing in response to the dismal findings of education quality in the Philippines (EDCOM II Year II Report, 2025). Under Republic Act 7784, the Teacher Education Council (TEC) spearheads the implementation and monitoring of the Centers of Excellence (COE) (RA 7784, 1994). Republic Act 10066, Article 10, section 39 provides programs for heritage education through the protection, conservation, and preservation of cultural heritage properties, including the development of instructional materials (RA 10066, 2009). This is also substantiated in the provisions of Republic Act 11713, which promotes Filipino culture, as one of the objectives and functions of Teacher Education in the country (RA 11713, 2022).

In the contemporary context, prioritizing, preserving, and promoting local cultural heritage, such as jewelry-making traditions, has been embedded in the national reform agenda of the Philippines (RA 10066, 2009). The Republic Act 10533 exemplifies this shift, which focuses on localization and contextualization (RA 10533, 2013). Scoular (2020) emphasized "a global recognition of the importance of learner-centric education and the development of well-rounded competencies." These skills prepare learners for the demands of the modern workforce (Saguin et al., 2020). Therefore, it is important to emphasize the need for different approaches from various educational stakeholders to make education transformational.

In line with this goal, a localized culture of jewelry-making can propose a socially relevant teaching model that meets the requirements of the Philippine education curriculum in the future. As such, the study focuses on the traditional De Rama jewelry-making of Dauis, Bohol, Philippines, and endeavors to create a teaching model based on Kolb's Learning Cycle. The study documents the De Rama jewelry-making process, a practice, i.e., specific to the municipality of Dauis. Having a lone surviving key artisan who possesses comprehensive knowledge of the process, a case study design is appropriate in documenting this art form.

This study contributes to culture-based instructional knowledge that engages learners in understanding both heritage and contemporary challenges, and addressing their volatile, uncertain, complex, and ambiguous (VUCA) world, making Quality Education possible under SDG 4.

Research Objectives

This study aimed to explore the practice of De Rama jewelry-making in Dauis, Bohol, Philippines by addressing the following objectives: (1) trace a brief historical background of the De Rama earrings; (2) identify the process of the production of De Rama earrings, (3) analyze the designs of the De Rama earrings, (4) extrapolate the De Rama experiential learning context; and (5) design a Contextualized De Rama Unified Model of the Teaching.

Limitations of the Study

The study sets its limitations, excluding in-depth historical development of jewelry production across historical eras, the validation of the CDRUMT as a pedagogical teaching model, including its limited time for a highly quantitative validation of the model, and the economic aspects of jewelry production. These limitations of transferability of findings, rather than their analytical depth, are grounded in a triangulated qualitative stance.

Theoretical Paradigm Integrating Multiple Models

Theoretical paradigms underpin the gamut of this study. Lev Vygotsky's Theory of Social Constructivism enhances cultural learning through imitation and coaching by a cultural model (Taber, 2025) or the More Knowledgeable Other (MKO). Another is the Culturally Responsive Theory (CRT) by Gay (2018), which he defined as "using cultural knowledge, prior experiences…of diverse learners to make learning encounters more relevant and effective for them." Through CRT, teaching is a contextual process…and it is a never-ending journey (Gay, 2018).

CRT leads to the creation of a Culturally Responsive Pedagogy (CRP). Accordingly, it is a teaching initiative in a diverse classroom using culture as a framework in lesson development, which provides easy access in facilitating students' learning" (Irvine, 2009; Mette, Nieuwenhuizen & Hvidston, 2016).

Moreover, the Quadrant Theory of Cultural Dynamism (QTCD) by Centillas et al. (2023) served as one of its theories, integrating multiple models. In QTCD, peripheral culture in the mainstream is asserted as a requirement for cultural globalization. "QTCD's pragmatic view opens a window of opportunities to consider art and culture – a centerpiece of an engaging activity for learning in meaningful local contexts, using the art and crafts of raffia as a typical example" (Centillas et al., 2023). This quote is primordial in the exploration and development of the DRUM-EL and CDRUMT in the study.

Review of Related Literature

The Philippine basic educational curriculum, as mandated by Republic Act No. 10533, known as the "Enhanced Basic Education Act of 2013," emphasizes a learner-centered, culture-sensitive, and contextualized approach grounded in constructivism, inquiry, reflection,

collaboration, and integration (RA 10533, 2023). This mandate highlights the flexibility for localization, indigenization, and enhancement of educational and social contexts in schools, emphasizing a quality education tailored to localities. These provisions call for the development of locally feasible instructional materials and content reflective of the lived experiences and social contexts of the learners.

Saguin et al. (2020) emphasized the importance of contextualizing project-based pedagogy to enhance learning using daily experiences. In Developmental Education, contextualization is recommended to prevent underutilization, decontextualization, and demotivation (Saguin et al., 2020). Contextualization is essential for culture-based education (CBE). Singh and Herold (2014) characterized CBE as a mechanism that supports students' socio-emotional well-being, public participation, and positive academic outcomes in schools with diverse socio-cultural backgrounds.

Anchored on the K to 12 Curriculum's vision for culture-based education, CBE provides a means to revisit and sustain cultural practices that may be marginalized or overshadowed by foreign influence. Castagno and Brayboy (2008) noted that some researchers view CBE as a fundamental educational principle denied under Spanish and American colonial regimes. Culture-sensitive educators argue that formal educational systems often overlook and misunderstand learner contributions from diverse ethnic and cultural backgrounds (Singh & Espinoza-Herold, 2014).

Singh and Espinoza-Herold (2014) described CBE as a response to social and educational challenges faced by Indigenous youths, emphasizing that learners' cultural and societal experiences are critical to its effectiveness. In this regard, Kolb's Experiential Learning Theory serves as an appropriate framework for culture-based curriculum. ELT focuses on the learner's internal cognitive processes and emphasizes that learning involves the accumulation of conceptual abstractions that can be applied to different circumstances (McLeod, 2017). Hence, Chui (2019) also juxtaposed the primary role of experience in knowledge construction (Kolb & Kolb, 2018). Kolb's Learning Cycle illustrates the ongoing progression of assimilation and knowledge generation through the interplay of "action/reflection" and "experience/abstraction" (Kolb & Kolb, 2018). The cycle comprises concrete experience, reflective observation, abstract conceptualization, and active experimentation. Ultimately, learning depends on an individual's ability to accept and apply experience (Kosir et al., 2008; Li & Armstrong, 2015).

Experiential Learning in the Global Context

Experiential Learning Theory is a comprehensive and flexible representation of the learning process, emphasizing the crucial role that experience can play in the learning process. According to Kolb, a meaningful learning experience happens when students experience and undergo all four stages of the cycle. This pattern may not limit students to holistically probing

or scrutinizing a certain topic through disparate views and activities, but also allows adaptation and understanding. These styles arise from two intersecting dimensions—thinking vs. feeling on the first and doing vs. watching on the other. While individuals have a specific learning style, they are capable of adapting and responding to different learning styles (Smith & Kolb, 1986; Konak et al., 2014). Consequently, the Learning Cycle creates opportunities for activities that align students' learning styles to a specific stage, complementing their learning preferences. (McLeod, 2010).

In the literary scope, the application of the learning cycle has been used to examine differences among student groups in their styles and preferences (Kulturel-Konak et al., 2011; Konak et.al., 2014). Its use is frequently documented in programs for improving students' learning discussed through training projects or field studies (Clark et al., 2010; Raschick et al., 1998). A finite number of researchers recommend its use to enhance classroom activities. Svinicki and Dixon (1987) proposed it as a framework for classroom activities, providing paradigms of instructional approaches that have the potential to support its various stages of study. Similarly, active strategies incorporate four stages to improve the learning process for students pursuing a degree in chemical engineering; however, apprehension about the issue of difficulty and lack of performance in the learning results from engineering laboratories remained. In relation, Abdulwahed and Nagy (2009) mentioned that this theory is a union of individualized in-class, virtual pre-laboratory, and first-hand laboratory sessions.

Although the learning cycle resembles other active learning approaches [e.g., case-based learning, application cards, role-playing, visual organizing activities, etc.], it is distinguished by its experience-centered orientation. The Lab-centric Instruction of Titterton et al. (2010) and the Process Oriented Guided Inquiry Learning (POGIL) of Moog & Spencer (2008) are aligned with Kolb's framework. Both of these approaches stipulate a group of learners to utilize a pre-planned classroom activity, encouraging their knowledge construction and understanding rather than attaining it through formal instruction lectures. Achieving lab-centric instruction depends on the structure of the lab sessions, which are reinforced by discussions, quizzes, self-assessments, reflections, and projects. The POGIL emphasizes inquiry-based learning organized around exploration, concept invention, and application phases.

POGIL has been widely implemented in educational science and has demonstrated positive learning outcomes across disciplines (Kussmaul, 2011). However, literature indicates its refinement for dissemination and security of classes. This limitation underpins the suitability of Kolb's Learning Cycle as a foundational framework and a cornerstone for this study. This limitation also enhances students' learning outcomes and improves their reasoning and socialization abilities.

Learning Cycle in the Philippine Setting

Abao et al. (2015) noted that internationalization and globalization showed a noteworthy influence on 21st-century education. Technology has been identified as a means of enhancing knowledge, attitudes, and skills, supporting internalization of learning (Boholano, 2017). McCoog (2008) further emphasized that learners are encouraged to generate concepts, evaluate information, develop 21st-century competencies, and apply that knowledge to their prior experiences. In the Philippine context, innovation through contextualized subjective experiences is necessary to counterbalance external influences on education. In this narrative, Saguin et al. (2020) reaffirmed the use of Differentiated Instruction.

Under the Enhanced Basic Education Act of 2013, Curriculum Development provides a spiral progression approach to ensure mastery of skills and knowledge (RA 10533, 2013). This mandate prompted the creation of the Quadrant Model of Teaching (QMT) by Inocian (2015). In his study, Inocian explained QMT as primarily anchored on UNESCO's Four Pillars of Learning in the 21st Century, upon which the K to 12 Curriculum of Philippine Education is based, as well as Ned Hermann's Brain Dominance Theory, which divides the brain into four quadrants, and Tomlinson's Differentiated Instruction (DI). Inocian (2015) described the QMT as a structured model that integrates learning activities aligned with learners' cognitive diversity.

The QMT framework (2015) presented a spiral progression consisting of Knowledge, Practice or Reflection, Understanding or Mastery, and Products and Performances. The Knowledge component encompasses essential curriculum content and various forms of procedural, strategic, episodic, and descriptive knowledge (Inocian, 2015). The Process component focuses on perceptual and cognitive skills. The Understanding and Reflections stage emphasizes principles and generalizations assessed through six facets of understanding; the Products and Performances area includes the authentic application of learning through students' performance based on authentic tasks.

These theoretical anchors share similarities with Kolb's Learning Cycle, particularly in the experience that serves as the foundation of learning. In Inocian's QMT, knowledge is corresponded with a culturally situated experience, vis-à-vis the De Rama jewelry-making practice, which affects the development of learning in a social context. This alignment reinforces the relevance of experiential and culture-based approaches in the Philippines. Collectively, these perspectives affirm cultural experiences in jewelry-making, support DepEd's goals, Kolb's Experiential Learning theory, and quality education initiatives in the Philippines.

Research Methodology

Research Design

The study utilized both a qualitative case study design and an exploratory design. The De Rama jewelry-making of Dauis, Bohol, Philippines, utilized a qualitative case study design with a limited sample of key informants. This intentional narrowness is appropriate for documenting an endangered craft tradition where surviving practitioners are rare, allowing for the depth required to capture intricate oral histories and technical nuances. An exploratory design in the crafting of a Culture-based De Rama Unified Model of Teaching (CDRUMT) anchored on Kolb's Experiential Learning Theory, Inocian's Quadrant Model of Teaching (QMT), Hermann's Brain Dominance Theory, and the provisions of RA 10533 or the Enhanced Basic Education Act of 2013 in the Philippines (RA 10533, 2013), was used to provide the essence of a DRUM-EL and the CDRUMT process in the classroom.

Research Participants

Five research participants were included in this study, selected through enumeration sampling, a form of purposive sampling. This method was chosen to capture the entire available population of specialized experts for this specific craft. The first was a surviving artisan of De Rama jewelry-making, an elderly woman who had been producing De Rama pieces of jewelry in Dauis, Bohol, Philippines; her selection as the primary informant is justified by her status as the last master goldsmith possessing the historical techniques of the "De Rama" style. The second research participant was the museum curator of Bohol National Museum, who provided vital information in tracing the history of the craft through a formal interview. The remaining three artisans were younger and also engaged in the De Rama jewelry-making. Three museum clients were also interviewed for validation. These research participants were selected using enumeration sampling. This sampling technique is a form of purposive sampling with a surviving artisan and a museum curator. These five expert individuals shed light on Bohol's De Rama jewelry-making culture.

Research Instrument

Data was generated using three primary instruments: an Interview Protocol, an Observation Protocol, and Related Artifacts/Documents. The Interview Protocol contained semi-structured questions used with curator and artisans. Observing triangulation, these questions were inter-rated among three experts in three State University and Colleges to ensure accuracy, credibility, and dependability. The Observation protocol was used during the actual craftsmanship to document technical processes and capture photographs of the designs. Archival documents from the museum and physical jewelry artifacts served as the third instrument for data triangulation, ensuring that oral accounts matched historical records. A

coding sheet was used to plot the steps of De Rama jewelry vis-à-vis the intricacies of theories reflected in literature.

Research Environment

The study was conducted in Dauis, a town historically significantly known for the De Rama Jewelry-making tradition. Established as a Spanish settlement in 1697, the town's coincided with the emergence of the De Rama craft, making it a critical site for cultural preservation. Located southwest of Bohol's mainland and northern Panglao Island, Dauis serves as the primary geographical context where the traditional techniques and oral histories of the artisans are rooted. This setting is vital for the study as it provides the cultural backdrop necessary for the contextualization of the teaching model.

Data Gathering Procedure

A letter of intent was first sent to the prospective interviewees. Following confirmation, the researchers and participants agreed on the time and venue. The interview process involved restating the purpose and proceeding to focus questions on the vernacular language. Through observation, the researchers recorded field notes on overt behavior, activities, and techniques. To ensure data trustworthiness, culture revalidation was conducted after the study's completion allowing participants to review, comment on, and validate the accuracy of the findings and the resulting model.

Data Analysis

The data were subjected to narrative analysis to feature jewelry-making culture. Interview transcripts were analyzed thematically to identify key milestones in the craft's lineage and the expert artisan's technical evolution. Documentary analysis was applied to textual and archival records to verify historical timelines (Shaw et al, 2004). Furthermore, semiotic analysis focused on recurring visual motifs, material choices, and symbolic forms embedded in De Rama jewelry, with meanings interpreted through cultural context and corroborated by participant explanations. Specifically, the researchers decoded the physical motifs of the four (4) designs–*Nilusok, Binulak, Binaye, and Binukag*–as signifiers to identify their underlying cultural values as signified (Cullum-Swan & Manning, 1994). Deductive coding was employed using a coding sheet with priori codes (e.g., history, design, pedagogy). These codes provided the bridge between the technical steps of the craft and the pedagogical phases of the CDRUMT model.

Ethical Considerations

Ethical consideration protocols were observed. The study obtained ethical clearance from the University's Ethics Review Committee. A formal process for obtaining Informed Consent was followed, where participants were briefed on the study's purpose and their right to withdraw before signing the Letter of Informed Consent. The names of the research participants were kept confidential, and personal information was protected. Photos were

taken only after consent was signed, and tokens of gratitude were provided following the interview.

Results and Discussion

Historical Background of De Rama Jewelry

The De Rama style is a traditional jewelry design by the artisans of Dauis, Bohol. These particular designs exhibit technical and aesthetic parallels to the Mazahua earrings of Mexico, characterized by circular motifs approximately half an inch in diameter with individual rings forming a half-moon configuration. While the etymology of the term De Rama remains a subject of oral debate, historical evidence suggests that its emergence is linked to the establishment of Dauis as a Spanish colonial port in the 17th century, facilitating cultural and trade exchanges between Mexico and the Philippines (Bohol National Museum, 2020). Building upon a pre-colonial jewelry-making foundation, local artisans transitioned during the Spanish occupation to the production of both ecclesiastical and secular pieces The De Rama design represents this cultural synthesis, where Mexican-inspired layouts were localized through indigenous craftsmanship, ultimately shaping the cultural identity and artistry of the Dauis community following the Spanish influence of the late 17th century.

Production Processes of De Rama Jewelry

As shown in Figure 2, the production of De Rama jewelry follows a structured technical workflow consisting of nine distinct phases. Earrings are visually presented. It illustrates the steps from customer consultation, concept making, gathering of materials, organizing materials for work, designing, plating, cleaning, cooling, and customer feedback.

Figure 2.

Technical stages of the De Rama jewelry-making process.

Note: The De Rama Jewelry-making process between the artisan and the customer

The process of jewelry-making initiates with customer consultation, where the customer engages the artisan on the size and price of the jewelry. Concept Making is the second phase of the process, where the artisan lays out the design and the materials needed in jewelry-making. The completion of the layout marks the transition to the production phase. This phase is followed by gathering the piece of gold, a molder, and other materials used in the next steps of production. Once all gathered materials are in place, they are placed in separate bowls to prevent mixing that may compromise the integrity of the molding process. This is followed by the plating process, with a controlled thermal application. The cleaning of the molded jewelry takes place. After its completion, the cooling process takes place, and the artisan facilitates the aesthetic reveal of the finalized design to the customer. The customer feedback is the last phase where the artisan engages the client in a validation loop through a formal fitting. Artisans incorporate customer feedback, comments, and jewelry modifications.

Designs and Symbolic Meanings

Figure 3 displayed a version of a *Nilusok* earring. The design is derived from the Cebuano-Visayan word *lusok*, which means bead. Although traditionally having a multifaceted design, the *nilusok* earrings are characterized by three gold beads in varied sizes with diameters of 5 mm, 8mm, and 11 mm.

Figure 3.

Nilusok design

Note: Three-layered Nilusok with suspended from small to large-sized beads
Photo by: Dauis Jewelry Makers Association posted by National Museum Philippines Bohol (Facebook)

Figure 4 displays the traditional De Rama jewelry in the *Binulak* design. The *Binulak* design is derived from the Cebuano-Visayan word *bulak*, meaning flower. Hence, *binulak*, or flower design, is coined. Its circular appearance conveys a flower design at the center

surrounded by several small balls connected by repeated twirling patterns. The average size of a De Rama *Binulak* design earring is 17 mm in length and 22 mm in width.

Figure 4.

De Binulak design

Note: Paired Binulak depicting two blooming flowers in the garden

Figure 5 exhibited the *Binaye* design. Binaye is derived from the Cebuano-Visayan word baye, which means female. Hence, *binaye* means femininity. This intricate version of a fan-like shape connects a solid spherical pattern, enhancing the wearer's look to be more feminine. Its sophistication is reinforced by a harp-shaped design at the center that is locally interpreted as a visual reference to feminine form an identity. Its size is 17 mm in length and 22 mm in width.

Figure 5.

Binaye design

Note: Paired Binaye enclosed in solid spherical beads

Figure 6 displayed the Binukag earring as another version of the De Rama Design. *Binukag* came from the Cebuano-Visayan word *bukag,* or basket. Hence, *binukag* is a basket-like design. It is reinforced with a plant-like motif in the middle, signifying a more feminine

aura of village women who use their baskets while picking fruits and vegetables on the farm. It is ring-shaped and made more attractive by the addition of decorative details. It is 18 mm diameter.

Figure 6.

Binukag design

Note: Paired Binukag beaded with multiple small wheels and floral plant designs

Experiential Learning Context and Culture-Based Learning

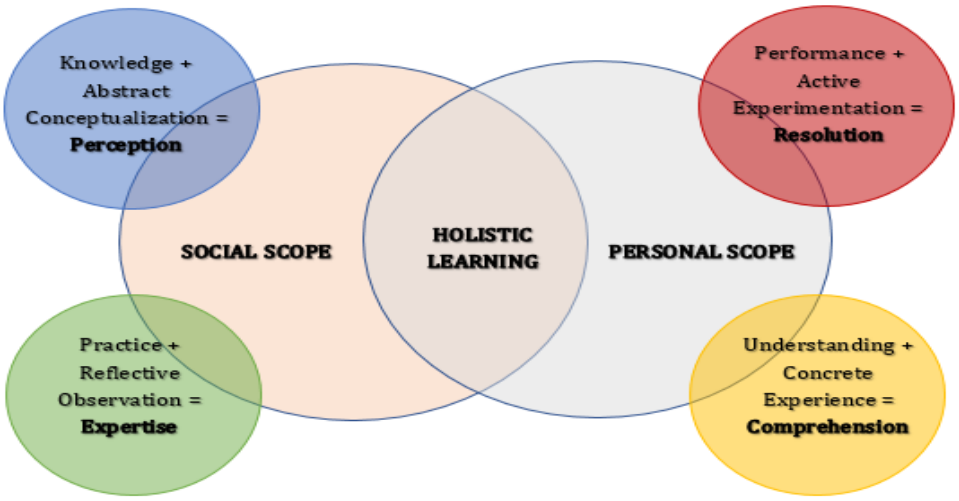
Figure 7 presents the DRUM-EL Framework that visualizes four outer bubbles in a color-coded representation of perception and expertise within the social domain. Meanwhile, comprehension and resolution are categorized within the personal domain. Each color was based on the Knowledge, Mastery, Understanding, and Performance (KMUP) Model by Inocian, which was also based on the QMT and Hermann's Brain Quadrants. In perception, knowledge is paired with abstract conceptualization in the context of the conceptualization of the De Rama design agreed upon by the customer. Perception is operationally defined as learners' awareness of existing information from personal experience. It may also refer to individualized knowledge, as it falls under the first level of Inocian's spiral model. In the context of De Rama, the artisan's knowledge in design, production, and fitting is recognized. In cultural contexts, individuals analyze cultural diversity to construct multicultural, local, and global perspectives. In De Rama, this is manifested through the diverse requirements of the customer who needs the design of the earrings.

Expertise is the second component within the social scope. It is a result of the combination of practice and reflective observation. As shown in Figure 7, the expertise quadrant integrates perception, practice, and reflective observation, allowing learners to synthesize observations into practical applications. At this point, perception and expertise lie within the social scope as influenced by social participation and contribution. These qualities characterize the learner's engagement during individual participation in society, facilitating

the comprehension of the facets of culture. Comprehension is realized through understanding the self and society, integrated with concrete experiences.

Figure 7.

De Rama Unified Model of Experiential Learning (DRUM-EL) Framework



Note: The Scope of Holistic Learning in four areas of concern

Upon the integration of these competencies, from perception to expertise, learners develop the capacity for resolution when issues or problems occur in the context of their own culture. These qualities engage them in performance through active experimentation in resolving social issues within the community. This response occurs when personal and social perception, expertise, comprehension, and resolution facilitate the development of a learner culturally and contextually. Within this context, learning is characterized by experiential, reflective, and culturally-situated processes, aligning with culturally responsive pedagogy rather than formal instruction alone.

The totality of the diagram represents the learner's developmental framework, wherein they engage both in the environment (social) and an exclusive (personal) space, facilitating cognitive and cultural development. The intersection of the diagram indicates the integration of social and personal domains, suggesting that the synthesis of these experiences promotes holistic knowledge acquisition when integrated into the curriculum.

Development of CDRUMT

Effective pedagogical practice requires the contextualization of lesson content to ensure relevance and learner engagement. Based on the documentation of the De Rama jewelry-making process, the construction of the Contextualized De Rama unified Model of Teaching (CDRUMT) was developed. Table 1 presents an analytical mapping of the De Rama jewelry-making process to pedagogical theories, serving as the empirical basis for the CDRUMT.

Table 1.

Case Comparison of the De Rama Jewelry-making and the CDRUMT

Jewelry-making Process	Steps of the CDRUMT	Pedagogical Theory	Learning Task
***Pangonsulta,* or Customer Consultation,** is the negotiation between the client and the artisan	The learners negotiate with the teacher about the lesson content.	This is Edward Lee Thorndike's Law of Readiness; learners negotiate to engage in the lesson. Robert Gagne calls this stimulating recall	Providing motivational questions or self-made questionnaires related to the lesson
***Paglaraw sa Konsepto* or Concept Making** is creating a concept of the design and the methods to be used	The presentation of the learning competency of the week or the lesson objectives for the day	This is Understanding by Design by Grant Wiggins and Jay McTighe, and Robert Gagne's expectancy of learning	Utilizing open-ended questions or questions relating to the actual experiences of the learner
***Pagpangolekta ug Pagmustra sa Mga Gamit,* or Gathering and Organizing Materials,** is where the artisan starts to identify the tools and media in the project	Utilizing the resources needed to develop the lesson	This is the Technological, Pedagogical Content Knowledge by Serhat Kurt, where technology is integrated into the presentation and development of the lesson	Integrating technologies such as projectors, films, and even traditional books and other visual aids, enhances the acquisition and retention of learning
***Pagdesinyo,* or designing,** encompasses the melting, shaping, bending, and welding of metals to create jewelry	Allowing learners to engage in the learning process individually or in groups.	This is the scaffolding of lessons by Lev Vygotsky and Jerome Bruner, and Robert Gagne's Semantic Encoding.	Prompting, cueing, and shaping techniques will be most highly welcomed when they are used
***Paghanig ug Paglimpyo,* or Plating and Cleaning,** involves the refining of details of the crafted jewelry	Allowing learners to express their thoughts freely without inhibitions by clarifying concepts, and by affirming or rejecting information	Utilizing Robert Gagne's Responding or the Eliciting Performance	Allowing students to relearn, unlearn, and learn new things through debates, symposia, and collaborative discussions
***Pagpabugnaw* or Cooling** is the final corrections made before the jewelry is presented to the customer	Using the application of learning transfer, where learners synthesize and apply the lessons learned	Utilizing Robert Gagne's Retrieval and Generalization	Providing activities that enhance retention and mastery

***Pagpahinumdom*, or Customer Feedback,** is the giving of customer reactions to the jewelry	Allowing for a general evaluation of the student's performance	Using Robert Gagne's Reinforcement in the form of positive feedback	A formative test can be given to the students to ensure academic performance

Note: The Joint Table Analysis of the De Rama and the CDRUMT

The CDRUMT integrates Kolb's Experiential Learning Theory, Inocian's Quadrant Model, and principles of Culturally Responsive Pedagogy to frame learning within the local cultural practices.

Kolb's Experiential Learning Theory provides the procedural structure of learning, while Inocian's Quadrant Model contextualizes learner development within sociocultural environments. Culturally Responsive Pedagogy serves as the interpretive lens that situates both models within local heritage practices, allowing their integration without theoretical contradictions.

Discussion

This section synthesizes the findings by situating them within the existing literature on culture-based education, experiential learning, and pedagogical model development.

The history of De Rama jewelry-making reflects Bohol's local culture of resilience, a craftsmanship that has survived for several centuries. This historical narrative underscores a cultural treasure requiring promotion, preservation, and conservation, not only within museum archives but also through the documented lived experiences of artisans and the systemic integration into the teaching and learning process.

The process of De Rama production follows a standardized technical procedure. The initial phase, customer consultation, involves a collaborative dialogue where the artisan and client establish design specifications and economic considerations. This participatory approach ensures that no jewelry is crafted without mutual agreement, anchoring the production process in local traditions of loyalty and trust. Technical precision is maintained by securing materials prior to production and utilizing separate workstations to ensure the integrity of the craftsmanship. The subsequent stages: molding, plating, cleaning, and cooling, facilitate the aesthetic finalization of the piece, leading to a final validation loop during the customer fitting.

In an article published National Museum of the Philippines – Bohol (2020), around six jewelry makers still practice the craft today; however, the only remaining artisan in Dauis is anonymized as Lady X from the Población area, who previously led the Association of Dauis' Jewelry Makers of Bohol. Despite challenges from the pandemic and mass commercialization,

which led to the closure of physical workshops, the craft persists through digital platforms. Key traditional designs that have survived include the *Nilusok* (beaded) earrings, which are reminiscent of pre-colonial aesthetics; the De Rama style; the *Binukag* (basket-shaped); and the *Binaye* (feminine-themed).

The semiosis of these designs reveals deep-seated cultural meanings. In the Nilusok design, the varied bead sizes serve as signifies for the three stages of female life cycle. The smallest bead represents youth and tenderness; the medium-sized signifies adolescence; and the largest bead represents maturity and the fullness of life. Collectively, these beads symbolize the solidifying roles of womanhood within the community. Similarly, the Binulak design encodes themes of nature and time. The floral and leaf motifs symbolize the abundance of the summer harvest, while the seven protruding beads represent the seven days of labor and rest cycle. This design serves as a material representation of perseverance and resilience. In the Binukad design, the fourteen circular motifs surrounding the floral frame illustrate the intricate connection between human industry and the natural environment.

The traditions of De Rama jewelry-making need preservation because the craftsmanship reflects a unique Castilian-Filipino synthesis, blending the 17th-century-Spanish-Mexican influences with pre-colonial gold-working techniques. This ornamentation serves as a symbol of identity, power, and ritualistic belief, marking a unique Filipino identity.

In response to national mandate for culture-based education (RA 10533, 2023) and recent EDCOM II findings, this study synthesizes Inocian's (2015) Quadrant Model of Teaching and Kolb's Learning Cycle into the De Rama Unified Model of Experiential Learning (DRUM-EL). This framework provides a localized, non-fragmented approach to social studies education. In the person, the Quadrant for Comprehension is grounded in the concrete experience of customer consultation. The Quadrant for Resolution is manifested through the active experimentation seen in the technical plating and cooling processes. In the social domain, the Quadrant of Perception utilizes the artisan’s existing knowledge and abstract conceptualization, while the Quadrant for Expertise is realized through reflective observation and the practice of refined craftsmanship.

The CDRUMT aligns with the culturally responsive frameworks by Gay (2018). And Mette et al., (2016), yet it offers a distinct extension by dovetailing with the specific jewelry-making traditions of Bohol. Whole previous models emphasize general curriculum through local cultural identity. The newly explored model contributes to the instructional process by underpinning Culturally Responsive Pedagogy (CRP), expanding upon Kolb’s Learning Cycle by providing a contextualized application that extends beyond the classroom to governance and end leadership.

Conclusion and Recommendations

The De Rama Jewelry making of Dauis, Bohol, Philippines, represents a significant cultural heritage that necessitates strategic preservation and pedagogical integration. By synthesizing the technical and semiotic documentation of this craft with David Kolb's Experiential Learning Theory and Reynaldo Inocian's Quadrant Model of Teaching, this study successfully developed the Contextualized De Rama Unified Model of Teaching (CDRUMT). This model effectively bridges the gap between traditional craftsmanship and classroom instruction by aligning specific jewelry-making phases with structured learning tasks. The CDRUMT facilitates holistic development, addressing the personal, social, and cultural dimensions of learning thereby providing a culturally responsive framework that supports the effective implementation of the K-12 programs in Philippine education.

Based on the results, the following are the recommendations: (1) the Local Government of Bohol may provide a blueprint for preservation and promotion of the De Rama jewelry-making of Dauis, Bohol, (2) the Heritage and Tourism sector of Bohol may include the culture of De Rama in their travel destinations in the museums of Bohol, (3) the educators and scholars may consider looking into the validation of the CDRUMT in a quasi-experimental studies, (4) teachers in basic education may consider using CDRUMT in the instruction process and see the improvement of the students' academic performance, and (5) local anthropologists and historians can continue researching the other jewelry designs in the Philippines during the Spanish times.

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