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Strengthening the Use of Localized Materials for the Advancement of Cultural Sustainability Through Students' Creativity in Handicraft Making

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Abstract*—The primary objective of the study was to determine how the strengthened use of localized materials in handicraft-making activities contributes to the advancement of cultural sustainability through the enhancement of students' creativity among Grade 8 students in selected public secondary schools in the Division of Laguna. Specifically, it determined the level of use of localized materials, the level of cultural sustainability and the level of students' creativity. The researcher also identified the significant correlation between use of localized materials on cultural sustainability, and students' creativity. The study employed a descriptive–correlational research design involving 165 Grade 8 students from Lumban National High School, Pagsanjan Integrated National High School, Cavinti Integrated National High School, and Luisiana Integrated National High School. A researcher-designed survey questionnaire that had been verified by education professionals and evaluated using weighted mean, standard deviation, Pearson correlation, and interaction analysis in regression was used to gather data. Findings revealed that the use of localized materials was very highly utilized, while cultural sustainability was very highly sustained, and students' creativity was very highly creative. Results further showed a significant positive relationship between the use of localized materials on cultural sustainability, indicating that integrating local resources in handicraft instruction promotes cultural identity, intergenerational knowledge transfer, economic viability, and environmental stewardship, while level of the students' creativity in terms of project-based learning intensity and cultural awareness were very highly creative. Based on the findings of the study, it is concluded that the use of localized materials has a significantly positive relationship with cultural sustainability. This indicates that the integrating locally sourced and culturally relevant materials in instruction can effectively promote the preservation and appreciation of culture among students. However, the result further reveals that students' creativity does not have significant moderation between the use of localized materials and cultural sustainability. Additionally, students demonstrated a very high level of learning creativity in terms of project-based learning intensity and cultural awareness, highlighting the students; ability to engage in meaningful and innovative learning experiences. It is recommended that the schools may further integrate culturally relevant and sustainable materials in instructional practices to support culturally responsive and meaningful learning experiences.*

***Keywords*—** *Localized Materials, Cultural Sustainability, Students' Creativity, Handicraft Making.*

I. INTRODUCTION

The Philippines is widely recognized for its rich abundance of localized materials, which are deeply rooted in its diverse cultural and environmental landscape. Across different regions, communities utilize indigenous resources such as abaca from Bicol, rattan from Palawan, bamboo from Northern Luzon, and pandan and buri from the Visayas and Mindanao in the production of traditional crafts. In the context of this study, localized materials refer to these readily available, culturally significant resources used in handicraft making within educational settings. Despite their availability and cultural value, the increasing emergence of synthetic and commercially produced materials has led to a decline in the use of indigenous resources. This shift not only affects environmental sustainability but also contributes to the gradual loss of traditional knowledge and practices associated with local craftsmanship.

In light of this concern, the concept of cultural sustainability becomes essential. Cultural sustainability refers to the preservation, promotion, and continuity of cultural heritage, traditions, and practices across generations. It emphasizes maintaining cultural identity while adapting to societal changes. Saro et al. (2023) highlighted that integrating ethno-learning resources promotes sustainability and contextual learning, allowing students to better connect with the content through their cultural and ecological backgrounds. When localized materials are continuously utilized and taught within the learning environment, they serve as a medium for transmitting indigenous knowledge and ensuring that cultural practices remain relevant in modern society.

Anchored in this perspective, students' creativity plays a significant role in utilizing localized materials and promoting cultural sustainability. Students' creativity refers to the ability to generate original ideas, express innovation, and produce meaningful outputs through learning experiences. The study by Bowen & Kisida (2023) supports the idea that arts-based education enhances student engagement and participation, aligning improved students' engagement through material-based learning. When learners are engaged in activities, they are encouraged to explore, experiment, and create based on their cultural context. This process not only enhances their creative skills but also fosters a deeper appreciation of their cultural heritage, making them active participants in preserving and reinventing traditional practices.

In the Junior High School curriculum, handicraft making is an essential component of the Technology and Livelihood Education (TLE) subject, particularly under Industrial Arts. It provides students with opportunities to develop practical

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skills, creativity, and cultural awareness through hands-on activities. Handicraft making becomes highly relevant in strengthening the use of localized materials, as it allows learners to directly engage with indigenous resources while producing culturally inspired outputs. Through this approach, students not only enhance their creative abilities but also contribute to the advancement of cultural sustainability, handicraft making an effective educational avenue for preserving and promoting local culture.

1.1 Statement of the Problem

Problem/s which were addressed by the research

This study aimed to examine the relationship between utilization of handicraft making and use of localized materials to cultural sustainability. Hence, it sought to answer to the following questions.

1. What is the level of using localized materials in handicraft making in terms of:
   1.1. instructional integration;
   1.2. availability of supply;
   1.3. cultural relevance; and
   1.4. sustainability of materials?
2. What is the level of cultural sustainability in terms of:
   2.1. cultural identity;
   2.2. intergenerational transfer;
   2.3. economic viability; and
   2.4. environmental stewardship?
3. What is the level of student's creativity in terms of:
   3.1. project-based learning intensity; and
   3.2. cultural awareness?
4. Do the use of localized materials significantly correlate on cultural sustainability?
5. Do the project-based learning intensity of student creativity significantly moderate the relationship between the use of localized materials and cultural sustainability?
6. Does the cultural awareness of student creativity significantly moderate the relationship between the use of localized materials and cultural sustainability?

II. Methodology

The study employed a descriptive–correlational research design involving 165 Grade 8 students from Lumban National High School, Pagsanjan Integrated National High School, Cavinti Integrated National High School, and Luisiana Integrated National High School. Data were collected through a researcher-made survey questionnaire, validated by experts in education and analyzed using weighted mean, standard deviation, Pearson correlation, and interaction analysis in regression.

III. Results and Discussion

This part discusses the results that were yielded from the treatment of the data that was gathered in this study. The following tabular presentations and discussions aim to examine the relationship between utilization of students' creativity in handicraft making and use of localized materials to cultural sustainability.

Level of Using Localized Materials in Handicraft Making

In this study, the level of using Localized Materials in Handicraft Making was described in terms of instructional integration, availability of supply, cultural relevance, and sustainability of materials and was determined by mean and standard deviation.

Table 1 presents the level of using localized materials in handicraft making in terms of instructional integration.

The respondents strongly agree that the teachers incorporate localized materials into handicraft lessons to enhance their learning experiences. Discusses use of localized materials, using it as classroom instructional materials and encourages the student to use it for class projects to supports local tradition and they also use localized materials as examples when explaining craft-making concepts and developing products for real-life use.

The level of using localized materials in handicraft making in terms of instructional integration attained the overall weighted mean of 4.33 with a standard deviation of 0.84, verbally interpreted as Very Highly Utilized, indicates that teachers strongly integrate the use of local materials in handicraft making lessons.

Table 1. Level of Using Localized Materials in Handicraft Making in Terms of Instructional Integration

Statements The teacher…	Mean	SD	Remarks
…incorporates localized materials into handicraft lessons to enhance learning experiences.	4.38	0.80	Strongly Agree
…uses localized materials as examples when explaining craft-making concepts.	4.31	0.84	Strongly Agree
…encourages the student to use localized materials during class projects.	4.32	0.82	Strongly Agree
…relates handicraft projects in using local materials to real-life applications.	4.29	0.82	Strongly Agree
…discusses how the use of local materials supports local traditions.	4.38	0.90	Strongly Agree
Weighted Mean	4.33		
SD	0.84		
Verbal Interpretation	Very Highly Utilized		

In summary, the results imply that the utilization of localized materials in handicraft making during instruction in classroom discussion enhances students' learning experiences and that the use of localized material is an integral part of the learning process.

Table 2 presents the level of using localized materials in handicraft making in terms of availability of supply.

The respondents strongly agree that the teachers ensure that localized materials are accessible for handicraft activities, guides students on safe and affordable sources, plans handicraft activities based on resource availability and implements strategies to address shortage of localized materials. On the other hand, the respondents agree that coordination with the school to provide sufficient localized materials for student projects. It implies that provision of sufficient localized materials was not consistently practiced, and this may be because of the schools' limited resources.

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Table 2. Level of Using Localized Materials in Handicraft Making in Terms of Availability of Supply

Statements The Teacher…	Mean	SD	Remarks
…ensures that localized materials are accessible for handicraft activities.	4.41	0.75	Strongly Agree
…coordinates with the school to provide sufficient localized materials for student projects.	4.20	0.82	Agree
…guides students on safe and affordable sources of localized materials.	4.59	0.75	Strongly Agree
…plans handicraft activities based on the availability of quality local materials.	4.27	0.93	Strongly Agree
…implements strategies to address shortage of localized materials.	4.24	0.85	Strongly Agree
Weighted Mean	4.34		
SD	0.83		
Verbal Interpretation	Very Highly Utilized		

The level of using localized materials in handicraft making in terms of availability of supply attained the overall weighted mean of 4.34 with a standard deviation of 0.83, verbally interpreted as very highly utilized, indicates that the teacher strongly assured the availability of supplies within the community in handicraft making lessons.

In summary, the results imply that the utilization of local materials in handicraft making in terms of availability of supply were observed by the teachers indicating that teachers guide students in identifying accessible resources, however provision of materials may be further strengthened to ensure support in handicraft projects.

Table 3 presents the level of using localized materials in handicraft making in terms of cultural relevance.

The respondents strongly agree that the teachers select localized materials that reflect the community's culture and identity while reinforcing the cultural values and creativity. Explain the cultural significance and promote appreciation of local heritage through the use of localized materials in their handicraft making lessons. On the other hand, respondents just simply agree in incorporating local patterns, motifs and designs in handicraft projects.

Table 3. Level of Using Localized Materials in Handicraft Making in Terms of Cultural Relevance

Statements The Teacher…	Mean	SD	Remarks
…selects localized materials that reflect the community's culture and identity.	4.22	0.84	Strongly Agree
…explains the cultural significance of localized materials used in handicrafts.	4.33	0.88	Strongly Agree
…incorporates local patterns, motifs, and designs in handicraft projects.	4.16	0.92	Agree
…uses localized materials to promote appreciation of local artistic heritage.	4.25	0.83	Strongly Agree
…reinforces cultural values and creativity through the use of localized materials.	4.24	0.83	Strongly Agree
Weighted Mean	4.24		
SD	0.86		
Verbal Interpretation	Very Highly Utilized		

The level of using localized materials in handicraft making in terms of cultural relevance attained the overall weighted mean of 4.24 with a standard deviation of 0.86, verbally interpreted as Very Highly Utilized, indicates that teacher strongly utilized the importance of cultural relevance on the use of local materials in handicraft making lessons.

The results imply that the utilization of local materials in handicraft making in terms of cultural relevance were evident. They agreed that the teacher enabled the students to give importance to local culture and appreciate artistic heritage while developing creativity and practical skills, though incorporating local patterns may be strengthened further by consistent integration.

Table 4. Level of Using Localized Materials in Handicraft Making in Terms of Sustainability of Materials

Statements The Teacher…	Mean	SD	Remarks
…encourages the use of eco-friendly and recyclable localized materials.	4.64	0.67	Strongly Agree
…integrates sustainability principles when using localized materials in class.	4.34	0.79	Strongly Agree
…discourages the use of materials that may harm the environment.	4.30	0.87	Strongly Agree
…models responsible and sustainable use of localized materials.	4.35	0.78	Strongly Agree
…highlights how using localized materials helps protect natural resources.	4.51	0.75	Strongly Agree
Weighted Mean	4.43		
SD	0.79		
Verbal Interpretation	Very Highly Utilized		

Table 4 presents the level of using localized materials in handicraft making in terms of sustainability of materials.

The respondents strongly agree that the teachers encourage the use of eco-friendly and recyclable localized materials, integrate sustainability principles and models responsible and sustainable use of localized materials in their classroom handicraft lesson. That the teachers practice a sense of responsibility in using sustainable materials, highlighting the use of localized materials as a way of protecting the environment and natural resources. Lastly, they also discourage students from using materials that may harm the environment.

The level of using localized materials in handicraft making in terms of sustainability of materials attained the overall weighted mean of 4.43 with a standard deviation of 0.79, verbally interpreted as Very Highly Utilized, indicates that the teachers strongly assure the sustainability of materials on the use of local materials in handicraft making lessons.

In summary, the results imply that the utilization of local materials in handicraft making in terms of sustainability of materials develops students' environmental awareness, creativity and appreciation for sustainable resource management ensuring long-term impact.

Level of Cultural Sustainability

In this study, the level of cultural sustainability in handicraft making were described in terms of cultural identity, intergenerational transfer, economic viability and environmental stewardship promoting preservation, adaptation and transmission of cultural practices.

The following tables discussed the level of cultural sustainability in handicraft making as perceived by Grade 8 learners.

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Table 5. Level of Cultural Sustainability in Terms of Cultural Identity

Statements The student…	Mean	SD	Remarks
…uses local materials strengthens the pride in culture.	4.30	0.81	Strongly Agree
…feels a stronger sense of belonging when creating crafts with local materials.	4.33	0.80	Strongly Agree
…creates handicraft projects that reflect their cultural identity.	4.22	0.84	Strongly Agree
…understands their heritage better through local craft-making activities.	4.25	0.86	Strongly Agree
…uses localized materials that help preserve their national identity.	4.30	0.83	Strongly Agree
Weighted Mean	4.28		
SD	0.83		
Verbal Interpretation	Very Highly Sustained		

Table 5 presents the level of cultural sustainability in terms of cultural identity.

The respondents strongly agree that the use of localized materials in handicraft making strengthens the pride in culture, and gives them a sense of belonging while creating crafts which reflects their cultural identity. Using localized materials help them understand their heritage better and preserve their national identity through local craft-making activities.

The level of cultural sustainability in terms of cultural identity attained the overall weighted mean of 4.28 with a standard deviation of 0.83, verbally interpreted as Very Highly Sustained, indicates that students strongly agree that cultural identity is strengthened through their handicraft making lesson.

In summary, the results imply that cultural identity is highly sustained by the use of localized materials as perceived by the respondents enabling students to appreciate cultural roots, signifying preservation of cultural heritage while up-scaling sense of belonging.

Table 6 presents the level of cultural sustainability in terms of intergenerational transfer.

The respondents strongly agree that they are inspired to share learning about crafts with family, or younger students, and motivated in learning traditional craft to pass them on to others. They help to keep the old traditions alive in their community through handicraft making. On the other hand, respondents agree that their family members contribute ideas or skills related to traditional crafts, and learn handicraft techniques that were passed down through generations.

Table 6. Level of Cultural Sustainability in terms of Intergenerational Transfer

Statements The student…	Mean	SD	Remarks
…family members contribute ideas or skills related to traditional crafts.	4.20	0.87	Agree
…learns handicraft techniques that were passed down through generations.	4.12	0.91	Agree
…shares learning about crafts with family or younger students.	4.21	0.92	Strongly Agree
…motivates learning traditional crafts to pass them on to others.	4.24	0.87	Strongly Agree
…helps to keep old traditions alive in their community through handicraft making.	4.29	0.82	Strongly Agree
Weighted Mean	4.21		
SD	0.88		
Verbal Interpretation	Very Highly Sustained		

The level of cultural sustainability in terms of intergenerational transfer attained the overall weighted mean of 4.21 with a standard deviation of 0.88, verbally interpreted as Very Highly Sustained, indicates that students strongly agree in engaging to intergenerational transfer through their handicraft making lesson led to cultural sustainability within the community.

In summary, the results imply that the students are motivated to learn and share traditional crafts to help preserve cultural traditions within their community, while also acknowledging the supportive role of family members in sharing ideas and transmitting handicraft knowledge across generations.

Table 7. Level of Cultural Sustainability in terms of Economic Viability

Statements Student's Handicraft Product…	Mean	SD	Remarks
…made from local materials can be sold for profit.	4.10	0.95	Agree
…from the use local materials increases livelihood opportunities.	4.24	0.88	Strongly Agree
…as school project promotes selling or displaying locally crafted products.	4.10	0.95	Agree
…from the used of local materials reduces production costs for handicraft projects.	4.26	0.75	Strongly Agree
…promotes the potential of local crafts as a sustainable business.	4.22	0.93	Strongly Agree
Weighted Mean	4.18		
SD	0.90		
Verbal Interpretation	Highly Sustained		

The students strongly agree that the students' school handicraft products from the use of localized materials increases livelihood opportunities, reduces production costs for handicraft projects and promotes the potential of local crafts as a sustainable business within their community. Also, the respondents agree that their handicraft products made from localized material can be sold for profit. As school projects, it can be promoted to selling, or displaying locally.

The level of cultural sustainability in terms of economic viability attained the overall weighted mean of 4.18 with a standard deviation of 0.88, verbally interpreted as Very Highly Sustained. It indicates that the students strongly agree in promoting economic viability through their handicraft making lesson.

In summary, the result implied that using localized materials in handicrafts enhances livelihood opportunities, and promotes local crafts as sustainable local businesses. Increasing possible income as they use locally available materials in creating their crafts.

However, the students' awareness of marketing their crafts may be further strengthened through school and community-based initiative for a consistent opportunity in marketing students' products such as engaging them in actual display and selling of their products.

Table 8 presents the level of cultural sustainability in terms of environmental stewardship.

The respondents strongly agree that the use of localized materials in handicraft making makes them more conscious about protecting nature and their environment, and encourages them to practice proper waste management after finishing the

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projects. They are reminded by the teacher to gather the materials responsibly, and promote the reuse of local and natural materials in handicraft making projects.

Table 8. Level of Cultural Sustainability in terms of Environmental Stewardship

Statements The students…	Mean	SD	Remarks
…uses local materials that makes them more conscious about protecting nature.	4.24	0.93	Strongly Agree
…is reminded by the teacher to gather materials responsibly.	4.32	0.82	Strongly Agree
…promotes the reuse of local and natural materials in making handicraft project.	4.39	0.78	Strongly Agree
…believes handicraft making helps protect the environment.	4.38	0.80	Strongly Agree
…practices proper waste management after finishing the projects.	4.48	0.78	Strongly Agree
Weighted Mean	4.36		
SD	0.83		
Verbal Interpretation	Very Highly Sustained		

The level of cultural sustainability in terms of environmental stewardship attained the overall weighted mean of 4.36 with a standard deviation of 0.83, verbally interpreted as Very Highly Sustained, indicates that students strongly agree in assuring environmental stewardship through their handicraft making lesson.

In summary, the results imply that environmental stewardship is very highly sustained by the use of localized materials as perceived by the respondents highlighting that students consistently practiced responsible and sustainable behavior during handicraft making and become more conscious of environmental protection. However continuous reinforcement and exposure to environmental concepts may further strengthen their personal commitment in ecological responsibility.

Overall, the level of the cultural sustainability in terms of cultural identity, intergenerational transfer, economic viability, and environmental stewardship were all verbally interpreted as Very Highly Sustained, indicating that students actively engage in handicraft-making activities that not only strengthen their sense of cultural identity and pride but also facilitate the transmission of traditional knowledge and skills across generations. The use of localized materials supports economic viability by promoting affordable, marketable projects and provides additional options for livelihood, while fostering environmental stewardship through responsible and sustainable practices.

Level of Student's Creativity

In this study, the level of students' creativity in handicraft making was assessed to determine learners' project-based learning intensity and cultural awareness.

Table 9 presents the level of student creativity in terms of project-based learning intensity.

The respondents strongly agree that while making handicraft crafts, they were encouraged to design and plan their own ideas in making handicraft projects, and given a freedom to experiment with different materials and techniques. They were challenged to improve their designs each time they make a new craft, and require them to exercise critical thinking and creative problem-solving skills. Their originality and uniqueness in making handicraft projects using localized materials are valued by the teacher and encouraged to practice at all times.

Table 9. Level of Student's Creativity in Terms of Project-Based Learning Intensity

Statements The student…	Mean	SD	Remarks
…is encourage to design and plan their own ideas in making handicraft projects.	4.56	0.74	Strongly Agree
…is given freedom to experiment with different materials and techniques.	4.33	0.85	Strongly Agree
…originality and uniqueness in making projects are valued by teacher.	4.42	0.79	Strongly Agree
…projects require critical thinking and creative problem-solving.	4.25	0.86	Strongly Agree
…is challenged to improve their designs each time they make a new craft.	4.28	0.91	Strongly Agree
Weighted Mean	4.37		
SD	0.84		
Verbal Interpretation	Very Highly Creative		

The level of students' creativity in terms of Project-Based Learning Intensity attained the overall weighted mean of 4.37 with a standard deviation of 0.84, verbally interpreted as Very Highly Creative. It indicates that students strongly agree in exercising creativity, allowing them to express their unique and original ideas through their handicraft making lesson.

In summary, the results imply that student's creativity in terms of project-based intensity is enhanced and demonstrate that they are motivated to explore, experiment and apply critical thinking in designing unique and original handicraft designs.

Table 10 presents the level of student creativity in terms of cultural awareness.

Table 10. Level of Students Creativity in Terms Of Cultural Awareness

Statements The student…	Mean	SD	Remarks
…create crafts with local materials helps me appreciate Filipino culture.	4.45	0.75	Strongly Agree
…learn about different cultural symbols through our handicraft lessons.	4.18	0.78	Agree
…is inspired by traditional designs when making own craft projects.	4.26	0.90	Strongly Agree
…handicraft lessons encourage them to explore their cultural roots.	4.29	0.82	Strongly Agree
…can connect the crafts they make with their community's traditions and values.	4.30	0.84	Strongly Agree
Weighted Mean	4.30		
SD	0.83		
Verbal Interpretation	Very Highly Creative		

The respondents strongly agree that creating crafts with the use of localized materials helps them to appreciate Filipino culture, and connect them to their community's tradition. They were inspired by traditional design when making their own projects, and encouraged to explore their cultural roots. They also learn different cultural symbols through their handicraft making lessons.

The level of student's creativity in terms of Project-Based Learning intensity attained the overall weighted mean of 4.30

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with a standard deviation of 0.83, verbally interpreted as Very Highly Creative, indicates that students deepen their cultural awareness through their handicraft making lesson.

In summary, the results imply that student's creativity in terms of cultural awareness is enhanced as they feel encouraged in connecting their handicrafts with their traditions and values.

Overall, the level of the students' creativity in terms of project-based learning intensity and cultural awareness were all verbally interpreted as very highly creative. This indicates that students consistently demonstrate originality, innovation, and problem-solving skills while engaging in handicraft-making activities. Project-based learning encouraged learners to plan, design, and experiment with materials and techniques, fostering critical thinking and creativity. Simultaneously, the integration of cultural awareness allows students to connect their projects with traditional designs, local symbols, and community values, enriching their creative outputs with cultural significance.

Significant Relationship between Use of Localized Materials and Cultural Sustainability

In this study, the significant relationship between localized materials and cultural sustainability were analyzed applying Pearson Correlation Coefficient using Minitab 14.

Table 11 presents the correlation between the use of Localized Materials and Cultural Sustainability. The results include Pearson correlation coefficients (r-values), p-values, and sample size (N=165) for each relationship.

Table 11. Significant Relationship between Localized Materials and Cultural Sustainability

		Cultural Sustainability			
Use of Localized Materials		Cultural Identity	Intergenerational Transfer	Economic Viability	Environmental Stewardship
Instructional Integration	Pearson Correlation	0.588*	0.707*	0.483*	0.591*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	165	165	165	165
Availability of Supply	Pearson Correlation	0.644*	0.722*	0.647*	0.761*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	165	165	165	165
Cultural Relevance	Pearson Correlation	0.697*	0.783*	0.671*	0.761*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	165	165	165	165
Sustainability of Materials	Pearson Correlation	0.709*	0.750*	0.686*	0.686*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	165	165	165	165

Note * p < .05

A significant correlation between the use of localized materials and Cultural Sustainability was revealed in the above table. All obtained p-values are lower than 0.05 level of significance which affirms its significance. This implies that integration of local materials in instruction, materials availability and sustainability and its' cultural relevance is strongly associated with promoting cultural identity, continuity of tradition to younger generations, project sustainability and environmental management.

Overall, the results imply that educational institutions should continue promoting the use of localized materials in teaching and learning activities. Integrating culturally relevant resources may strengthen students' appreciation of their heritage while supporting sustainable practices. Teachers may also benefit from developing instructional strategies that utilize local knowledge, materials, and traditions to make learning more culturally responsive.

Table 12 presents the results of the moderation analysis, examining whether the project-based learning intensity of students' creativity moderates the relationship between the use of localized materials and cultural sustainability.

Table 12. Significant Moderation of Project-Based Learning Intensity of Student Creativity on the Relationship between the Use of Localized Materials and Cultural Sustainability

Predictor	Coefficient (β)	t-value	p-value
Use of Localized Materials Resorts (X1)	0.624	6.876	0.000*
Project-Based Learning Intensity (X2)	0.183	2.216	0.030*
Interaction Term (Use of Localized Materials Resort * Project Based Learning Intensity)	-0.040	-0.560	0.605

Note * p < .05

The results show that the use of localized materials has a significant positive effect (β = 0.624, t = 6.876, p = 0.000) on cultural sustainability. Similarly, project-based learning intensity also shows a significant positive effect (β = 0.183, t = 2.216, p = 0.030) on cultural sustainability. This indicates that greater use of localized materials in instruction and higher creativity levels significantly contributes to promoting cultural sustainability.

However, the interaction term is not significant (β = -0.040, t = -0.560, p = 0.605). This indicates that intensity of project-based learning does not significantly moderate the relationship between the use of localized materials and cultural sustainability. In other words, although both localized materials and project-based learning intensity independently contribute to cultural sustainability, the strength of the relationship between localized materials and cultural sustainability does not change based on the intensity of project-based learning.

Table 13 presents the results of the moderation analysis examining if cultural awareness of student creativity moderates the relationship between the use of localized materials and cultural sustainability. The results reveal that the use of localized materials has a significant positive effect (β = 0.610, t = 7.843, p = 0.000) on cultural sustainability. On the same note, cultural awareness also shows a significant positive effect (β = 0.213, t = 2.956, p = 0.004) on cultural sustainability. This indicates that frequent use of localized materials in instruction and greater cultural awareness significantly contributes in promoting cultural practices, values, and traditions.

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Table 13. Significant Moderation of Cultural Awareness of Student Creativity on the Relationship between the Use of Localized Materials and Cultural Sustainability

Predictor	Coefficient (β)	t-value	p-value
Use of Localized Materials Resorts (X1)	0.610	7.843	0.000*
Project-Based Learning Intensity (X2)	0.213	2.956	0.004*
Interaction Term (Use of Localized Materials Resort * Cultural Awareness)	-0.048	-0.699	0.487

Note * p < .05

However, the interaction term is not significant (β = -0.048, t = -0.699, p = 0.487). This indicates that cultural awareness does not significantly moderate the relationship between the use of localized materials and cultural sustainability. Even though both variables independently contribute to cultural sustainability, the strength of the relationship between localized materials and cultural sustainability does not differ significantly despite the change in the levels of cultural awareness.

IV. Conclusion and Recommendations

The findings revealed that the use of localized materials significantly correlate on cultural sustainability; thus, the null hypothesis is rejected. This indicates that the integration of localized materials in terms of instructional application, availability, cultural relevance, and sustainability significantly contributes to the enhancement of cultural sustainability. Specifically, these practices support the development of cultural identity, facilitate intergenerational knowledge transfer, and promote economic viability and environmental stewardship. Overall, the results underscore the importance of utilizing localized materials as a means of fostering culturally responsive and sustainable learning experiences.

Students' creativity in terms of project-based learning intensity do not significantly moderate the relationship between the use of localized materials and cultural sustainability. Therefore, the null hypothesis is accepted. This implies that the level of students' creativity in terms of project-based learning intensity does not significantly influence or alter the relationship between the used of localized materials and cultural sustainability. Regardless of the intensity of project-based learning activities, the association between localized materials and cultural sustainability remains consistent.

The findings showed that students' creativity in terms of cultural awareness do not significantly moderate the relationship between the use of localized materials and cultural sustainability; thus, the null hypothesis is accepted. This explain that students' cultural awareness does not significantly influence or modify the relationship between the use of localized materials and cultural sustainability. Regardless of the level of cultural awareness, the association between localized materials and cultural sustainability remains consistent.

Based on the results and conclusions posted in the study, the following recommendations were formulated into the following:

The schools may further integrate culturally relevant and sustainable materials in instructional practices to support culturally responsive and meaningful learning experiences.

The teachers may encourage students to create handicrafts using localized materials with potential for income generation, linking cultural heritage with economic sustainability while enhancing creativity and practical skills.

The students may engage actively in handicraft-making activities using localized materials to express their creativity through project-based learning intensity and cultural awareness, although creativity did not significantly moderate the relationship, fostering originality and cultural awareness remains essential for meaningful learning experiences.

The future researchers may explore other factors that may influence the relationship between project-based learning, creativity, and cultural awareness in handicraft-making. Investigating additional variables, larger sample sizes, or different educational settings could provide deeper insights into how localized materials impact students' learning outcomes and cultural engagement.

Reference

[1]. Bowen, D. H., & Kisida, B. (2023). Investigating arts education effects on school engagement and climate. Educational Policy, 38(8). https://doi.org/10.1177/08959048231174880

[2]. Saro, J. M., Bello, J. B., Concon, L. S., Polache, M. C. C., et al. (2023). Contextualized and localized science teaching and learning materials and its characteristics to improve students' learning performance. Psychology and Education: A Multidisciplinary Journal, 7(77–84). https://doi.org/10.5281/zenodo.7607686 ResearchGate