

The Economics of Cultural Learning: Erasmus Students' Museum Visits and Engagement

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ABSTRACT

This study investigates how economic conditions shape informal cultural learning within European student mobility, focusing on Erasmus students' museum participation and engagement. Drawing on a quantitative cross-sectional design (N = 100), the study examines whether perceived economic difficulty and affordability predict museum visitation and cultural learning engagement. Multiple regression analyses indicate that economic difficulty significantly reduces museum visits, while perceived affordability strongly predicts engagement ($\beta = .52, p < .001$), with economic variables explaining 29% of the variance in participation and 42% of the variance in engagement outcomes.

Beyond direct effects, mediation analysis reveals that engagement significantly mediates the relationship between affordability and perceived learning value, highlighting the psychological mechanism through which economic accessibility translates into educational benefit. Moderation analysis further demonstrates that financial strain weakens the positive association between affordability and engagement, indicating that economic hardship operates as a structural boundary condition limiting the depth of informal learning.

By simultaneously examining behavioral, psychological, and conditional mechanisms, this study advances research at the intersection of education economics, cultural capital theory, and student mobility. To our knowledge, it is among the first empirical investigations to integrate mediation and moderation models in analyzing economic influences on informal cultural engagement within Erasmus mobility contexts. The findings underscore that cultural learning during international mobility is not economically neutral and suggest that equitable access to cultural institutions should be recognized as a core dimension of mobility policy design.

Keywords: Erasmus, cultural capital, affordability, engagement, informal learning, student mobility.

INTRODUCTION

International student mobility constitutes one of the most influential transformations in European higher education over the past three decades. The expansion of cross-border mobility initiatives, particularly through Erasmus+, has reshaped the academic and social trajectories of millions of students by facilitating transnational learning environments, intercultural interaction, and identity development. Beyond its educational dimension, student mobility has increasingly been framed as a mechanism for strengthening European cohesion and social integration. Empirical research demonstrates that participation in mobility programs enhances intercultural competence, employability skills, and civic engagement (Brooks & Waters, 2018; European Commission, 2022). However, existing scholarship has predominantly concentrated on academic adaptation, institutional integration, and learning outcomes within formal educational settings. Comparatively limited attention has been paid to informal cultural learning experiences that occur outside the classroom—particularly engagement with museums and cultural institutions, which represent critical sites of experiential knowledge construction and cultural capital formation during the mobility period.

Museums constitute critical environments of informal learning, functioning as spaces where visitors engage in self-directed meaning-making processes that integrate cognitive stimulation, affective engagement, and identity negotiation. Contemporary museum research emphasizes that learning in cultural institutions is experiential,

socially mediated, and context-dependent rather than purely informational (Falk & Dierking, 2016). Through exposure to heritage narratives, artistic production, and historical interpretation, museums contribute to the development of cultural literacy and the accumulation of symbolic resources that extend beyond formal curricula. However, participation in such cultural environments is socially patterned and often stratified along socioeconomic lines. Empirical evidence demonstrates that access to museums and other cultural institutions is strongly associated with economic capital, educational background, and perceived affordability (Yaish & Katz-Gerro, 2012; Ateca-Amestoy, 2008). Importantly, financial constraints influence not only actual attendance but also perceived accessibility and psychological readiness to participate in cultural experiences. For mobile students living abroad under budgetary pressure, discretionary spending decisions become highly sensitive to perceived cost-benefit calculations, potentially limiting engagement with host-country cultural heritage even when physical access exists. Thus, economic conditions—both objective and subjective—may shape informal learning trajectories during international mobility periods.

This study examines how economic factors influence museum visitation and cultural learning engagement among Erasmus students, treating cultural participation as a form of educational opportunity that may be shaped by resource constraints during the mobility period. Prior evidence indicates that socio-economic background remains a persistent determinant of access to study-abroad opportunities and associated educational experiences, underscoring the relevance of economic stratification within mobility contexts (Di Pietro, 2020). Building on this inequality-sensitive lens, the present study investigates whether financial constraints, perceived affordability, and access-related costs (e.g., entry fees, transportation expenses, and incidental costs) predict museum participation as a concrete behavioral outcome. Beyond participation, we test whether perceived affordability is associated with deeper cultural learning engagement—conceptualized through cognitive involvement, motivational investment, and perceived learning value—consistent with research showing that engagement processes in museum contexts are strongly linked to meaningful learning outcomes (Lewalter et al., 2025). Furthermore, the study assesses whether engagement operates as an explanatory mechanism (mediation) linking affordability to learning outcomes and/or as a conditional process (moderation) that varies under conditions of heightened financial strain. This dual focus is also aligned with broader evidence that economic and structural barriers systematically shape patterns of arts and cultural engagement, indicating that affordability is not merely a practical issue but a key driver of participation and experience quality (Fluharty et al., 2021).

By linking micro-level economic barriers to informal learning engagement, this research contributes to a growing interdisciplinary dialogue at the intersection of education economics, cultural capital theory, and student mobility studies. While educational inequality has traditionally been examined in terms of access to formal schooling and academic performance, emerging research highlights the importance of extra-curricular and cultural participation as critical dimensions of stratification in higher education (Marginson, 2016). In this respect, informal learning environments such as museums function not merely as leisure spaces but as sites where cultural capital is accumulated, reproduced, or constrained. Socioeconomic inequalities continue to shape patterns of cultural participation across European societies, reinforcing disparities in access to symbolic and experiential resources (Yaish & Katz-Gerro, 2012). By focusing specifically on Erasmus students, this study extends these insights into the mobility context, where temporary relocation interacts with financial precarity and discretionary spending decisions.

Furthermore, the study advances policy discussions concerning equitable access within European mobility frameworks by foregrounding cultural participation as a dimension of inclusion. Although mobility programs are designed to promote social cohesion and intercultural exchange, structural inequalities may persist in the informal domain of cultural engagement. Recent analyses of higher education policy emphasize that widening participation must move beyond enrollment metrics to address differential access to learning-enhancing experiences (Brooks & Waters, 2018). By empirically demonstrating how affordability shapes engagement and learning outcomes, this research contributes evidence relevant to the design of inclusive mobility policies that integrate economic accessibility into broader educational equity strategies. To our knowledge, no prior empirical study has simultaneously examined mediation and moderation mechanisms linking economic perceptions to informal cultural engagement within Erasmus mobility contexts.

LITERATURE REVIEW

Cultural Capital and Informal Learning

Pierre Bourdieu conceptualized cultural capital as a system of symbolic resources transmitted through socialization processes and institutional recognition, shaping educational trajectories and social mobility. Cultural capital operates in embodied, objectified, and institutionalized forms, influencing not only academic achievement but also patterns of participation in culturally valued activities. Contemporary empirical research confirms that access to and engagement with cultural institutions remain strongly stratified along socioeconomic lines, reinforcing broader educational inequalities (Van Houtte & Stevens, 2017). Within this framework, museums function as institutionalized spaces of cultural capital, where exposure to artistic, historical, and scientific narratives contributes to knowledge accumulation, identity construction, and symbolic competence.

Recent museum studies scholarship further conceptualizes museums as dynamic learning ecologies rather than static repositories of information. Learning in museum environments is experiential, contextual, and socially mediated, integrating cognitive, affective, and motivational processes (Falk & Dierking, 2016). Informal learning theory emphasizes that visitors actively construct meaning through interaction with exhibits, prior knowledge, and social context, leading to reflective engagement and identity negotiation. Moreover, self-determination perspectives suggest that autonomy-supportive environments—such as voluntary cultural visits—enhance intrinsic motivation and deeper cognitive involvement (Deci & Ryan, 2000). Thus, museums are not merely leisure venues but environments of meaning-making, reflective interpretation, and motivational activation, positioning them as significant sites of informal learning within higher education mobility contexts.

Economic Barriers in Education

Educational access is shaped not only by tuition fees and direct institutional costs but also by indirect participation expenses that influence students' capacity to engage in broader educational experiences. Contemporary economic research emphasizes that opportunity costs, liquidity constraints, and subjective financial strain affect decision-making processes, particularly among young adults navigating limited resources (Callender & Mason, 2017). Within higher education, financial precarity has been shown to shape not only enrollment decisions but also participation in enrichment activities that fall outside mandatory academic requirements. Cultural visits, museum attendance, and extracurricular engagement often depend on discretionary spending, rendering them sensitive to fluctuations in perceived affordability (Callender & Melis, 2024).

Affordability operates at both objective and subjective levels. Objectively, students' available income, housing costs, and living expenses determine their financial margin for cultural participation. Subjectively, perceived financial stress influences risk assessment, spending priorities, and cognitive processing. Research in behavioral economics demonstrates that experiences of scarcity narrow cognitive bandwidth and shift attention toward immediate financial concerns, thereby reducing engagement in exploratory or long-term benefit activities (Mani et al., 2013). Similarly, empirical studies show that financial stress is negatively associated with academic engagement and psychological well-being, suggesting broader implications for learning-related behaviors (Richardson et al., 2017). These insights indicate that economic barriers extend beyond material limitations to encompass psychological constraints that may indirectly affect informal learning participation during international mobility.

Student Mobility and Access Inequality

Reports from the European Commission and empirical studies consistently indicate that socio-economic background influences participation patterns within Erasmus mobility, extending beyond enrollment and duration to include differences in extracurricular engagement and experiential learning. Although mobility programs are designed to promote inclusivity and intercultural exchange, inequalities persist in the extent and quality of cultural and social engagement during the mobility period. For example, quantitative analyses show that students from lower socio-economic status (SES) backgrounds are less likely to engage in discretionary cultural activities, such as museum visits or cultural excursions, compared to their higher-SES counterparts, even

when controlling for academic factors and host-country effects (Olsson & Gericke, 2016; King & Rumbley, 2019).

Mobile students frequently face financial adjustments, including housing costs, living expenses, and unanticipated mobility-related expenditures that may substantially alter discretionary spending patterns. These economic pressures can exacerbate differences in participatory behavior, with lower perceived affordability reducing the likelihood of engagement with host-country cultural heritage despite the availability of student discounts or institutional incentives. Empirical evidence from cross-national mobility studies highlights that financial constraints and perceived cost barriers are significant predictors of limited cultural participation, suggesting that inclusive mobility policy must address financial accessibility to ensure equitable participation in informal learning opportunities (Di Pietro & Cutillo, 2020).

Research Hypotheses

Based on the theoretical framework, the following hypotheses were formulated:

H1: Higher perceived economic difficulty is negatively associated with frequency of museum visits.

H2: Perceived affordability is positively associated with cultural learning engagement.

H3: Cultural learning engagement mediates the relationship between affordability and perceived learning value.

H4: Economic difficulty moderates the relationship between affordability and engagement, such that the association weakens under high financial strain.

METHODOLOGY

Research Design

The study employed a **quantitative, observational cross-sectional survey design** using structured questionnaires. Cross-sectional designs are particularly appropriate for examining associations between exposures (e.g., perceived economic difficulty and affordability) and outcomes (e.g., museum visitation and learning engagement) **at a single point in time**, offering an efficient framework for hypothesis testing in naturally occurring settings where manipulation is neither feasible nor desirable. In line with methodological guidance, all variables were collected concurrently to estimate the strength and direction of relationships among economic predictors and cultural learning outcomes, while acknowledging that causal inferences cannot be made from cross-sectional data (Setia, 2016; Wang & Cheng, 2020). The questionnaire-based approach was selected to ensure standardized measurement across participants from multiple host countries and to facilitate the use of multivariate statistical modeling. Questionnaire development and scale use followed established best-practice principles for behavioral and social research, including emphasis on construct clarity, internal consistency, and measurement reliability as prerequisites for valid inference in survey-based designs (Boateng et al., 2018).

Sample

The sample consisted of $N = 100$ Erasmus students enrolled in higher education institutions across 10 European host countries (Spain, Italy, Germany, France, Netherlands, Greece, Portugal, Belgium, Austria, and Poland). Participants were recruited through university mailing lists and Erasmus student networks using a voluntary response approach. Eligibility criteria included current participation in an Erasmus mobility program, residence in the host country for a minimum of two months at the time of data collection to ensure adequate exposure to the local cultural environment, and an age of 18 years or older. Participation was voluntary, and no financial incentives were provided.

The final sample reflected a typical mobility cohort profile. The mean age of participants was 22.8 years ($SD = 2.1$), consistent with undergraduate-level mobility demographics. Gender distribution was 58% female, 40% male, and 2% non-binary. The average duration of mobility at the time of survey completion was 5.4 months,

indicating that most participants were in mid- or late-stage mobility, allowing for meaningful engagement with host-country cultural institutions.

Regarding sample adequacy, recent methodological research suggests that sample sizes around 100 participants are sufficient for detecting medium-sized effects in multiple regression models with a limited number of predictors, particularly when effect sizes are expected to be moderate to large (Faber & Fonseca, 2014). Given the study's focused model structure and theoretical grounding, the sample size was considered appropriate for the statistical analyses conducted.

Measures

- Economic Difficulty

Economic difficulty was measured using a 5-item scale assessing participants' perceived financial strain during their mobility period. Items captured subjective economic pressure related to living expenses, budgeting constraints, and financial stress (e.g., "I experience financial difficulties during my mobility period"; "I need to limit my activities due to financial constraints"). Responses were recorded on a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). The scale demonstrated good internal consistency (Cronbach's $\alpha = .84$). The construct aligns with contemporary research conceptualizing financial strain as a subjective stressor influencing student behavior and engagement patterns (Richardson et al., 2017).

- Perceived Affordability

Perceived affordability was assessed through a 4-item index evaluating students' subjective evaluation of the economic accessibility of cultural activities in the host country (e.g., "Museum visits are financially affordable for me"; "The cost of cultural activities fits within my budget"). Internal consistency was strong ($\alpha = .87$). This measure captures the psychological dimension of cost evaluation, distinguishing perceived accessibility from objective income indicators. Behavioral economic research suggests that perceived affordability strongly influences discretionary participation decisions, particularly in contexts of limited financial bandwidth (Mani et al., 2013).

- Museum Visit Frequency

Museum participation was operationalized as a behavioral indicator through a single self-reported item asking participants to report the number of museum visits during their mobility period. Behavioral frequency measures are widely used in cultural participation research to capture observable engagement outcomes (Fluharty et al., 2021). The variable was treated as continuous in regression analyses.

- Cultural Learning Engagement

Cultural learning engagement was measured using a 9-item scale assessing three interrelated dimensions: cognitive involvement, motivational investment, and perceived learning value (e.g., "I actively reflect on what I learn during museum visits"; "Museum visits enhance my understanding of the host country"). All items were rated on a 5-point Likert scale. The overall scale demonstrated excellent internal consistency ($\alpha = .91$). The multidimensional operationalization is consistent with contemporary engagement research, which conceptualizes engagement as integrating cognitive, affective, and motivational components in informal learning environments (Bond et al., 2020).

All Likert-scale items were coded such that higher values indicated higher levels of the respective construct.

Data Analysis

Data were analyzed using IBM SPSS (Version 29). Preliminary analyses included descriptive statistics (means, standard deviations) to summarize central tendencies and variability, followed by Pearson correlation coefficients to examine bivariate associations among economic predictors, museum visitation, engagement, and perceived learning value. Correlation analysis was conducted to assess directionality and preliminary strength

of relationships prior to multivariate modeling, in line with standard recommendations for behavioral research (Field, 2018).

Multiple linear regression analyses were employed to examine the predictive effects of economic difficulty and perceived affordability on museum visitation and cultural engagement outcomes. Regression assumptions—including linearity, normality of residuals, homoscedasticity, and absence of multicollinearity—were assessed prior to model estimation. Variance Inflation Factor (VIF) values remained below recommended thresholds, indicating no multicollinearity concerns. Multiple regression is considered appropriate for estimating independent contributions of predictors in cross-sectional survey data when theoretical directionality is specified (Hayes, 2018).

To test indirect and conditional effects, mediation and moderation analyses were conducted using the PROCESS macro (Version 4.X) for SPSS (Hayes, 2022). Model 4 was employed to assess mediation effects, estimating whether cultural engagement mediated the relationship between perceived affordability and perceived learning value. Model 1 was used to test moderation effects, examining whether economic difficulty altered the strength of the relationship between affordability and engagement. Indirect effects were evaluated using bias-corrected bootstrapping procedures with 5,000 resamples, as bootstrapping provides robust estimates of indirect effects without assuming normal distribution of the sampling distribution (Preacher & Hayes, 2008). Statistical significance was determined at $p < .05$.

Ethical Considerations

The study was conducted in accordance with established ethical standards for social science research involving human participants. Ethical approval was obtained prior to data collection through institutional research procedures. Participation was voluntary, and informed consent was obtained electronically from all respondents before completing the questionnaire. No personally identifiable information was collected, responses were recorded anonymously, and participants were informed of their right to withdraw at any time without consequences. All data were stored securely and used exclusively for research purposes.

RESULTS

Descriptive Statistics

Participants reported an average of **3.2 museum visits** during their mobility period ($SD = 1.8$), indicating moderate engagement with host-country cultural institutions. The observed standard deviation suggests meaningful variability in participation levels, with some students reporting minimal or no visits, while others demonstrated relatively high levels of cultural engagement. This dispersion supports the analytical examination of predictors influencing museum participation.

Perceived affordability displayed moderate variance ($M = 3.08$, $SD = 0.91$), indicating heterogeneity in students' evaluations of the financial accessibility of cultural activities. While the mean score slightly exceeded the midpoint of the scale, suggesting that many students considered museum visits reasonably affordable, the variability implies that a substantial proportion experienced affordability constraints. Similarly, economic difficulty ($M = 3.42$, $SD = 0.88$) reflected moderate perceived financial strain during the mobility period.

Cultural learning engagement demonstrated comparatively high mean levels ($M = 3.67$, $SD = 0.74$), suggesting that when students participated in museum activities, they generally reported meaningful cognitive and motivational involvement. Perceived learning value also exhibited relatively elevated scores ($M = 3.82$, $SD = 0.69$), indicating that museum participation was typically regarded as educationally beneficial.

Overall, the descriptive statistics reveal sufficient variability across economic and engagement variables to justify subsequent multivariate analyses. Reliability coefficients for multi-item scales ranged from .84 to .91, indicating satisfactory to excellent internal consistency. Detailed descriptive statistics and reliability indices are presented in Table 1.

Table 1: Descriptive Statistics and Reliability Coefficients (N = 100)

Variable	Mean (M)	Std. Deviation (SD)	Cronbach's α
Economic Difficulty	3.42	0.88	.84
Perceived Affordability	3.08	0.91	.87
Museum Visit Frequency	3.20	1.80	—
Cultural Learning Engagement	3.67	0.74	.91
Perceived Learning Value	3.82	0.69	.89

Correlation Analysis

Pearson correlation analyses were conducted to examine the bivariate relationships among economic difficulty, perceived affordability, museum visitation, cultural learning engagement, and perceived learning value. The results revealed statistically significant associations in the expected directions.

Economic difficulty was negatively correlated with museum visits ($r = -.41, p < .001$), indicating a moderate inverse relationship. This finding suggests that students who experienced higher levels of perceived financial strain tended to report fewer museum visits during their mobility period. The magnitude of the correlation reflects a meaningful association rather than a trivial effect, supporting the premise that economic constraints are behaviorally consequential in informal cultural participation.

Perceived affordability demonstrated a strong positive correlation with cultural learning engagement ($r = .56, p < .001$). This association indicates that students who evaluated museum participation as financially accessible reported higher levels of cognitive involvement, motivation, and perceived learning value. The strength of this correlation suggests that affordability perceptions are closely tied to the qualitative experience of engagement, not merely to participation frequency.

Additional correlations (see Table 2) further indicate that affordability was positively associated with museum visitation ($r = .48, p < .001$) and learning value ($r = .51, p < .001$), while economic difficulty was negatively associated with engagement ($r = -.44, p < .001$) and perceived learning value ($r = -.39, p < .001$). These consistent patterns provide preliminary support for Hypotheses 1 and 2 and justify proceeding to multivariate regression and conditional process analyses.

Importantly, although economic difficulty and perceived affordability were moderately correlated ($r = -.52, p < .001$), the magnitude of this relationship did not indicate problematic multicollinearity, as the constructs capture conceptually distinct dimensions of financial experience (strain vs. perceived accessibility). Detailed correlation coefficients are presented in Table 2.

Table 2: Pearson Correlations

Variable	1	2	3	4	5
1. Economic Difficulty	—				
2. Affordability	-.52***	—			
3. Museum Visits	-.41***	.48***	—		
4. Engagement	-.44***	.56***	.49***	—	
5. Learning Value	-.39***	.51***	.46***	.63***	—

*** $p < .001$

Regression Analysis

Multiple linear regression analysis was conducted to examine whether economic difficulty and perceived affordability significantly predicted museum visitation during the mobility period. The overall regression model was statistically significant, $F(2, 97) = 19.84, p < .001$, explaining approximately 29% of the variance in museum visit frequency ($R^2 = .29$). This indicates that nearly one-third of the variability in cultural participation can be accounted for by students' perceived economic conditions.

Economic difficulty emerged as a significant negative predictor of museum visitation ($\beta = -.38, p < .001$), supporting Hypothesis 1. The standardized beta coefficient indicates that higher levels of perceived financial strain were associated with lower frequencies of museum attendance, even after controlling for perceived affordability. The magnitude of the effect suggests a moderate and practically meaningful association, reinforcing the argument that economic constraints directly shape informal cultural participation behaviors.

Perceived affordability also positively predicted museum visits ($\beta = .31, p = .002$), indicating that students who perceived museum activities as financially accessible were more likely to engage in cultural visits. While both predictors were significant, the slightly stronger standardized effect of economic difficulty suggests that financial strain may exert a more direct suppressive influence on participation than affordability perceptions alone.

Together, these findings demonstrate that both subjective financial stress and perceived cost accessibility play independent and significant roles in shaping museum engagement behaviors during student mobility. Detailed regression coefficients are presented in Table 3.

Table 3: Regression Predicting Museum Visits

Predictor	B	SE	β	p
Economic Difficulty	-0.72	0.15	-.38	< .001
Affordability	0.64	0.18	.31	.002

$R^2 = .29, F(2,97) = 19.84, p < .001$

Affordability significantly predicted cultural learning engagement ($\beta = .52, p < .001$), providing strong support for Hypothesis 2. The magnitude of the standardized coefficient indicates a substantial positive association, suggesting that students who perceived museum participation as financially accessible reported markedly higher levels of cognitive involvement, motivational investment, and perceived learning value. In practical terms, a one standard deviation increase in perceived affordability was associated with more than half a standard deviation increase in engagement, highlighting the strength of this relationship.

Importantly, the effect remained significant even after accounting for economic difficulty, indicating that perceived affordability operates as an independent psychological driver of engagement rather than merely reflecting overall financial strain. This finding suggests that students' subjective evaluation of cost accessibility plays a crucial role in shaping the quality of their informal learning experiences. While economic difficulty may limit participation behaviorally, affordability appears to influence the depth and intensity of engagement once participation occurs.

The relatively high explanatory power of the engagement model ($R^2 = .42$) further underscores the centrality of economic perceptions in understanding informal cultural learning during mobility. Together, these results indicate that affordability is not only a predictor of participation frequency but also a key determinant of how meaningfully students engage with cultural institutions (Table 4)

Table 4: Regression Predicting Cultural Engagement

Predictor	B	SE	β	p
Affordability	0.41	0.07	.52	< .001
Economic Difficulty	-0.28	0.09	-.26	.004

$R^2 = .42, F(2,97) = 35.22, p < .001$

Mediation Analysis

A mediation analysis was conducted using PROCESS Model 4 to examine whether cultural learning engagement mediated the relationship between perceived affordability and perceived learning value. Results indicated a statistically significant indirect effect (indirect effect = .21, 95% CI [.12, .34]), as the bias-corrected confidence interval did not include zero. This finding supports Hypothesis 3 and suggests that engagement operates as a significant explanatory mechanism linking affordability perceptions to learning outcomes.

Specifically, perceived affordability was positively associated with engagement, which in turn significantly predicted perceived learning value. The indirect effect size indicates that a meaningful portion of the relationship between affordability and learning value is transmitted through engagement processes. In other words, students who perceive museum participation as financially accessible are more likely to engage cognitively and motivationally, and this heightened engagement subsequently enhances their perception of learning benefit.

Importantly, the persistence of a significant indirect pathway highlights that affordability does not influence learning value solely through direct evaluation of cost-benefit considerations; rather, its effect unfolds through psychological and experiential processes. Engagement thus functions as a mediating mechanism translating economic perceptions into educational outcomes. This pattern aligns with theoretical perspectives suggesting that access conditions shape the depth of learning through motivational activation and cognitive involvement rather than through exposure alone.

The mediation findings therefore reinforce the argument that economic accessibility is structurally embedded in informal learning trajectories, influencing not only participation frequency but also the qualitative intensity of educational experiences.

Detailed indirect effect estimates are presented in Table 5.

Table 5: Mediation Analysis (PROCESS Model 4)

Path	Effect	SE	95% CI
Affordability → Engagement	.41	.07	[.27, .55]
Engagement → Learning Value	.58	.08	[.42, .73]
Indirect Effect	.21	—	[.12, .34]

Indirect effect significant (CI does not include zero).

Moderation Analysis

A moderation analysis was conducted using PROCESS Model 1 to examine whether economic difficulty altered the strength of the relationship between perceived affordability and cultural learning engagement. Results revealed a statistically significant interaction effect ($\beta = -.19, p < .05$), indicating that economic difficulty significantly moderated the affordability–engagement association. Hypothesis 4 was therefore supported.

The negative interaction coefficient suggests that the positive relationship between affordability and engagement becomes weaker as economic difficulty increases. In practical terms, while perceived affordability generally promotes higher levels of cognitive and motivational engagement, this effect is attenuated among students experiencing elevated financial strain. That is, even when museum participation is perceived as relatively affordable, students facing substantial economic pressure may not translate this perception into equally strong engagement.

Simple slope interpretation indicates that affordability has the strongest predictive effect on engagement under conditions of low financial difficulty, whereas under high financial strain, the slope of the relationship flattens. This pattern reflects a conditional constraint effect: economic hardship not only reduces participation directly (as shown in earlier analyses) but also diminishes the psychological benefits associated with perceived accessibility.

The moderation findings therefore extend the mediation results by demonstrating that economic conditions shape not only whether engagement mediates learning outcomes but also when and for whom affordability translates into deeper engagement. In this sense, financial strain operates as a structural boundary condition that constrains the educational potential of cultural accessibility.

The addition of the interaction term significantly improved model fit ($\Delta R^2 = .04, p < .05$), indicating that the moderation effect contributes meaningful explanatory value beyond main effects alone. Detailed coefficients are presented in Table 6.

Table 6: Moderation Analysis (PROCESS Model 1)

Predictor	B	SE	β	p
Affordability	.44	.08	.49	< .001
Economic Difficulty	-.22	.09	-.21	.018
Affordability \times Economic Difficulty	-.17	.07	-.19	.021

$\Delta R^2 = .04, p < .05$

Interpretation: Under high financial strain, affordability predicts engagement less strongly.

Summary of Hypotheses Testing

To provide a concise overview of the empirical findings, Table 7 summarizes the hypotheses tested in this study and their respective outcomes. All four hypotheses received empirical support, reinforcing the central argument that economic perceptions and financial strain play a decisive role in shaping both participation in and engagement with informal cultural learning during student mobility.

Specifically, Hypothesis 1 was supported, confirming that higher levels of perceived economic difficulty significantly reduce museum visitation frequency. Hypothesis 2 was also supported, demonstrating that perceived affordability strongly predicts cultural learning engagement. Importantly, Hypothesis 3 established engagement as a mediating mechanism linking affordability to perceived learning value, while Hypothesis 4 revealed that economic difficulty weakens the positive relationship between affordability and engagement.

Together, these findings indicate that economic accessibility influences informal learning through both direct behavioral pathways and indirect psychological mechanisms, while also being conditionally constrained under heightened financial strain.

Table 7: Summary of Hypotheses Testing

Hypothesis	Statement	Supported
H1	Economic difficulty negatively predicts museum visitation.	Yes
H2	Perceived affordability positively predicts cultural learning engagement.	Yes
H3	Engagement mediates the relationship between affordability and perceived learning value.	Yes
H4	Economic difficulty moderates the affordability–engagement relationship.	Yes

DISCUSSION

The present study examined how economic perceptions and financial strain shape museum participation and informal cultural learning engagement among Erasmus students. The findings provide consistent empirical support for the central proposition that economic accessibility is not merely a logistical condition of participation but a structural determinant of informal learning experiences during international mobility.

First, the results confirm that perceived economic difficulty significantly reduces museum visitation frequency. This finding aligns with broader evidence indicating that socio-economic constraints continue to shape participation in educational and cultural activities, even within policy frameworks designed to promote inclusivity (Brooks & Waters, 2018). While Erasmus mobility aims to enhance intercultural exchange and equal opportunity, the present findings suggest that inequalities persist at the level of discretionary cultural participation. In this respect, access to cultural capital remains economically structured, echoing contemporary analyses of stratification in higher education contexts (Marginson, 2016).

Second, perceived affordability emerged as a strong predictor of cultural learning engagement. The magnitude of this effect underscores that affordability is not solely associated with whether students attend museums but also with how deeply they engage cognitively and motivationally. This result resonates with research on student engagement, which conceptualizes engagement as a multidimensional construct integrating behavioral, cognitive, and affective components that are shaped by contextual factors (Bond et al., 2020). In mobility contexts, perceived cost accessibility appears to function as a psychological gateway to deeper experiential learning.

The mediation findings provide particularly important theoretical insight. Engagement significantly mediated the relationship between affordability and perceived learning value, indicating that economic perceptions influence educational outcomes through psychological and motivational pathways. Rather than exerting a direct effect on learning value alone, affordability enhances engagement, which in turn increases the perceived educational benefit of museum participation. This mechanism supports informal learning theory, which emphasizes that meaning-making and reflective involvement—rather than mere exposure—drive learning outcomes in cultural settings (Falk & Dierking, 2016). The results therefore extend prior work by empirically demonstrating how economic accessibility becomes translated into learning value through engagement processes.

The moderation analysis further deepens the interpretation of inequality dynamics. Economic difficulty significantly weakened the positive relationship between affordability and engagement, suggesting that financial strain operates as a structural boundary condition. Even when students perceive museum visits as affordable, high levels of economic stress may constrain their cognitive bandwidth, emotional investment, or motivational energy. This pattern is consistent with behavioral economic research showing that scarcity reduces cognitive resources available for exploratory and long-term oriented activities (Mani et al., 2013). Thus, financial hardship not only restricts participation directly but also dampens the psychological returns of perceived accessibility.

Taken together, these findings contribute to ongoing discussions about access inequality in international student mobility. While participation in Erasmus programs has expanded substantially, emerging scholarship cautions that mobility does not automatically eliminate socio-economic disparities in experiential engagement (Di Pietro & Cutillo, 2020). The present study extends this literature by focusing specifically on informal cultural learning and by identifying both mediating and moderating mechanisms through which economic perceptions shape outcomes.

Importantly, the study advances cultural capital theory in contemporary mobility contexts. Museums, as institutionalized sites of symbolic resource accumulation, may reproduce inequalities if access conditions remain economically stratified. However, the findings also suggest that enhancing perceived affordability may strengthen engagement and learning value, indicating that policy interventions targeting economic accessibility could meaningfully reduce disparities in informal learning experiences.

Overall, the results support a multidimensional understanding of cultural participation during student mobility. Economic conditions influence (a) whether students participate, (b) how deeply they engage, and (c) how much educational value they derive. By integrating regression, mediation, and moderation analyses, the study provides a comprehensive empirical account of how micro-level financial perceptions intersect with informal learning processes within European mobility frameworks.

Policy Implications

The findings of this study have important implications for higher education institutions, cultural organizations, and policymakers operating within European mobility frameworks. If economic perceptions significantly influence both participation in and engagement with informal cultural learning, then ensuring equitable access to cultural institutions should be conceptualized as a structural component of educational mobility rather than a peripheral enrichment activity.

First, universities hosting Erasmus students could incorporate structured cultural accessibility schemes into their mobility support systems. Empirical research on international student mobility demonstrates that socio-economic background continues to shape the quality of students' mobility experiences, including extracurricular engagement (Brooks & Waters, 2018). Subsidized museum passes, institutional partnerships with cultural organizations, and culturally integrated orientation programs may therefore reduce disparities in participation. Because engagement mediates the relationship between affordability and perceived learning value, improving economic accessibility may produce amplified educational benefits beyond mere attendance.

Second, cultural institutions could strengthen formal collaborations with higher education institutions by developing targeted engagement initiatives tailored to mobility students. Rather than relying exclusively on generalized student discounts, co-designed educational programs may foster deeper cognitive and motivational involvement. Such initiatives align with broader European higher education policy discussions emphasizing the need to move beyond enrollment expansion toward qualitative equity in educational experiences (European Commission, 2022).

Third, policymakers within European Union mobility frameworks may consider integrating explicit cultural accessibility components into mobility funding structures. Although Erasmus mobility grants address tuition and living costs, emerging research indicates that discretionary participation in cultural and social activities remains stratified along socio-economic lines (Di Pietro & Cutillo, 2020). Introducing designated cultural participation allowances or partnership-based access models could mitigate these inequalities and enhance the experiential dimension of mobility.

Finally, evaluation mechanisms within mobility programs could incorporate informal learning indicators alongside academic performance metrics. Contemporary debates on widening participation stress that inclusion must extend beyond access to encompass meaningful engagement with educational and cultural resources (Brooks & Waters, 2018). Addressing both objective financial constraints and perceived affordability barriers may therefore strengthen the equity dimension of international mobility policy.

CONCLUSIONS

This study set out to examine whether cultural learning during international mobility is shaped by economic conditions. The findings clearly indicate that informal cultural participation among Erasmus students is not economically neutral. Financial strain reduces museum visitation, perceived affordability strongly enhances engagement, and engagement mediates the relationship between economic accessibility and perceived learning value. Moreover, economic difficulty weakens the positive impact of affordability on engagement, revealing that financial hardship acts as a structural boundary condition. Together, these results demonstrate that economic perceptions influence not only whether students participate in museum-based learning but also how deeply they engage and how much educational value they derive.

These findings contribute to a growing body of research emphasizing that higher education inequality extends beyond access to formal instruction and encompasses experiential and cultural dimensions of learning (Marginson, 2016). While mobility programs such as Erasmus have expanded participation across Europe, emerging evidence suggests that socio-economic background continues to influence the quality and depth of students' mobility experiences (Brooks & Waters, 2018; Di Pietro & Cutillo, 2020). By focusing specifically on informal cultural engagement, the present study advances this literature by identifying both mediating and moderating mechanisms linking economic perceptions to learning outcomes.

The mediation findings underscore that engagement operates as the psychological mechanism through which affordability translates into perceived educational benefit. This aligns with contemporary engagement research highlighting the central role of cognitive and motivational involvement in shaping meaningful learning outcomes (Bond et al., 2020). The moderation results further suggest that financial stress may constrain the cognitive and emotional resources required for deep engagement, consistent with behavioral economic research demonstrating that scarcity reduces cognitive bandwidth and limits exploratory behaviors (Mani et al., 2013). Thus, economic accessibility should be understood not merely as a participation issue but as a determinant of learning quality.

From a policy perspective, these conclusions reinforce the argument that equitable access to cultural institutions should be recognized as an integral dimension of educational mobility frameworks. If cultural capital accumulation and informal learning opportunities remain economically stratified, mobility programs risk reproducing rather than mitigating inequality. Integrating economic accessibility measures into mobility design may therefore enhance both participation equity and educational effectiveness.

Despite its contributions, this study has several limitations. First, the cross-sectional design limits causal inference; longitudinal research would allow examination of how economic perceptions and engagement evolve over time during the mobility period. Second, the reliance on self-reported measures may introduce response bias, particularly in estimating museum visit frequency and perceived learning value. Third, the sample size, while adequate for regression and conditional process analyses, restricts generalizability across the broader population of European mobility students. Future research could employ larger multi-country samples, incorporate objective behavioral measures (e.g., ticket data or digital engagement tracking), and explore additional mediating mechanisms such as intercultural identity development or social integration processes.

In conclusion, this study demonstrates that economic accessibility is structurally embedded in informal learning trajectories during international mobility. Cultural learning is shaped not only by exposure to host-country institutions but also by the financial and psychological conditions under which such exposure occurs. Addressing economic accessibility in cultural participation may therefore represent a necessary step toward realizing the equity ambitions of European higher education mobility.

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