



The Role of Academic Motivation and Mastery Goals in Shaping Adolescent Aspirations

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Abstract

This study explores the potential association of academic motivation and mastery goal orientation with adolescents' expectations, within the broader context of ecological and personal factors. Drawing on a sample of 193 Greek students (mean age 13.7 years, 56.5% girls), we employed a cross-sectional design using validated psychometric scales. Correlational analyses revealed strong, positive associations between students' work expectation scores and both motivation ($\rho = .75$, $p < .001$) and mastery goal orientation ($\rho = .74$, $p < .001$). Hierarchical linear regression analyses confirmed that motivation, mastery goals, safety in neighborhood and peer support were associated with students' occupational aspirations, explaining 67% of the variance ($R^2 = .67$) in the total sample, with motivation and mastery goals being the most powerful correlates. The findings highlight the high importance of internal motivational processes over demographic or contextual variables on students' perceived futures. Implications are discussed for school-based career education, early guidance interventions, and policies aimed at fostering adaptive goal-setting in adolescence.

Keywords: academic motivation, mastery goal orientation, adolescent aspirations, goal theory, work expectations

1 Introduction

Adolescence is a pivotal phase for forming educational and occupational aspirations, where internal motivational processes, goal orientations, and contextual influences interact to determine future expectations (Balfanz, 2009; Balfanz et al., 2007). Understanding how academic motivation and mastery goal orientation may be associated with these aspirations is essential, given that such psychological constructs have shown strong links with academic engagement, achievement, and long-term outcomes across diverse populations (Kong et al., 2023; Hoferichter et al., 2024). Motivation does not occur in isolation: it is embedded in social and ecological systems, including family, school, and culture, that either support or hinder adolescents' aim to envision and pursue ambitious aspirations (Muteti et al., 2018). Within achievement goal theory, mastery goals, orientations toward developing competence

and improving one's understanding, are consistently linked to adaptive learning behaviors, deeper strategy use, and lower negative affect compared with performance-avoidance tendencies (Chazan & Klapp, 2022). Recent evidence continues to show that mastery-approach goals seem to be positively associated with more favorable cognitive and affective learning experiences in secondary school (Lee et al., 2024). At the same time, academic motivation relates robustly to engagement and achievement, while its developmental trajectory often declines during the secondary years, a pattern partly explained by unmet psychological needs for autonomy, competence, and relatedness (Yu et al., 2025; van der Beek et al., 2025; Cheon et al., 2023; Wang et al., 2024). These literatures converge on a central claim we test here: internal motivational processes, particularly mastery goals and academic motivation, are pivotal correlates of adolescents' aspirations for work and further education.

Motivation and goals do not unfold in a vacuum; they are embedded in ecological systems (Petrogiannis, 2003, 2022, 2024). The results of the present study in Greece highlighted how community factors—perceived neighborhood support, safety, activity, and friendships—are associated with both academic performance and expectations among lower and upper secondary students. In the study, neighborhood resources and social support showed especially strong links for junior secondary students, suggesting early adolescence may be a sensitive period for context-motivation synergies. The present article narrows the lens to probe whether mastery goal orientation and academic motivation are the strongest correlates of work expectations, above and beyond demographic and contextual variables.

The Greek context makes this focus timely. International monitoring shows ongoing challenges in student performance and belonging, underscoring the urgency of motivation-focused, evidence-based supports in schools (OECD, 2024; Kounetas et al., 2023). National demographic pressures and system-level shifts further complicate the landscape for school improvement and guidance provision. Against this backdrop, identifying malleable, school-addressable factors, such as mastery-goal climates and autonomy-supportive teaching is crucial. Interventions that enhance need-support (e.g., providing meaningful choices, optimal challenge, and informational feedback) reliably strengthen students' autonomous motivation and related outcomes (Cheon et al., 2023; Wang et al., 2024). Despite extensive international literature on the role of motivation and achievement goals in adolescents' academic trajectories, very few studies have systematically examined how these factors can be linked to occupational expectations in the Greek educational context. The lack of local evidence limits our understanding of the cultural and institutional influences that may condition adolescents' developmental pathways. Addressing this gap makes the present study particularly timely and necessary. The absence of such evidence has important implications for educational policy and psychoeducational practice in Greece. Without a clear understanding of how internal motivational processes connect to future expectations, early career guidance initiatives and school-based motivation programs remain fragmented and insufficiently evidence-based.

Empirically, emerging studies extend the motivation–aspiration linkage: day-to-day fluctuations in adolescents' motivation track instructional experiences (e.g., clarity, autonomy, cognitive challenge), and goal profiles vary with activity type and relate to momentary interest and anxiety (Yu et al., 2025; Hoferichter et al., 2024). This aligns with our hypothesis that mastery goals and motivation will show strong positive associations with adolescents' work expectations, reflecting an internalized sense of capability and purpose that translates into envisioned futures (Masten, 2014). However, findings in this field are not entirely consistent. Some studies suggest that mastery goals are not always the strongest correlates across contexts, with performance goals sometimes relating positively to achievement outcomes (Senko & Dawson, 2017). These inconsistencies highlight the

importance of examining goal orientations within specific sociocultural frameworks such as Greece.

In the present study, *academic motivation* is operationalized through the Motivation subscale of the Academic Competence Evaluation Scales (ACES; DiPerna & Elliott, 2000), while *mastery goal orientation* is assessed with the Personal Achievement Goal Orientations Scale (Midgley et al., 2000). Both constructs are measured on five-point Likert scales, where higher scores reflect stronger endorsement of the motivational dimension. Based on previous evidence, we hypothesize that both academic motivation and mastery goal orientation will be positively and significantly associated with adolescents' work expectations, above and beyond demographic and contextual variables.

In sum, building on ecosystemic evidence from Greece and recent advances in motivation and goal-orientation research, this study examines the role of academic motivation and mastery goal orientation in adolescents' work expectations. By situating individual motivational processes within their ecological context, we aim to inform school-based career education and early guidance interventions that cultivate adaptive goals and sustained engagement during the secondary years.

2 Method

This study adopted a sequential explanatory mixed-methods design (Creswell & Plano Clark, 2017). In the first, quantitative phase, a cross-sectional correlational survey was administered to examine associations between academic motivation, mastery goal orientation, and adolescents' work expectations. The survey approach was appropriate for identifying patterns of association among motivational, contextual, and outcome variables in adolescent populations, although it does not allow for causal inferences. In the second, qualitative phase, semi-structured interviews with students were conducted to deepen understanding of the quantitative findings. Integration of the two strands during interpretation enabled the qualitative data to contextualize and enrich the statistical patterns, providing a more nuanced account of adolescents' perspectives within the Greek educational system.

Despite these strengths, the study has methodological limitations. The reliance on self-report measures may introduce biases such as social desirability or recall error, and the cross-sectional design precludes conclusions about directionality or causality. In addition, while the interviews enriched interpretation, they were conducted with a relatively small sample and may not fully capture the diversity of adolescent experiences. Future research could address these limitations by employing longitudinal designs to clarify developmental trajectories, incorporating larger and more diverse qualitative samples, and using multi-informant or observational data to triangulate self-reports. Such approaches would provide a more robust and comprehensive understanding of the interplay between motivational processes and adolescents' aspirations.

2.1 Participants and Sampling

The sample consisted of 193 Greek adolescents (56.5% girls; M age = 13.7 years, SD = 1.1). Participants were enrolled in junior high schools (Gymnasio) across different regions of Greece. The majority (74.5%) lived and attended school in the Athens/Attica metropolitan area, and 65.8% were enrolled in private schools. Most participants lived with both parents (78%), and a substantial proportion had at least one university-educated parent (37% of mothers, 38.5% of fathers) as can be seen in Tab.1.

A multistage cluster sampling procedure ensured socio-geographic representation. School units were first grouped by municipality, then stratified by region using Boudeville's typology (Lagos et al., 2001) into fast-growing and slow-growing areas. Municipalities were further stratified by socio-economic profile (urban high, urban middle, urban low, rural/semi-urban). From these strata, 10% of municipalities were randomly selected, yielding a sampling frame of 272 schools. Final participation reflected 193 students due to administrative barriers and pandemic-related disruptions, of whom 26 participated in semi-structured interviews. While private schools were somewhat overrepresented, the sample included students from diverse socio-economic and geographic backgrounds.

Students were eligible to participate if they were enrolled in junior high school (*Gymnasio*) in Greece, had sufficient Greek language proficiency to complete the questionnaires, and provided parental consent. Exclusion criteria included absence of parental consent, incomplete questionnaires, or reported learning/communication difficulties that would prevent independent completion of the survey.

2.2 Measures

A battery of validated psychometric scales was administered in Greek, following translation and back-translation where necessary. Reliability was assessed with Cronbach's α (all $> .70$) evident in Tab.2. In addition, exploratory factor analyses (EFA) were conducted to confirm the expected dimensional structures of the translated instruments, and the results reproduced the theoretical factor solutions, supporting construct validity.

Academic Motivation. The Motivation subscale of the Academic Competence Evaluation Scales (ACES; DiPerna & Elliott, 2000) was used. This nine-item scale assesses intrinsic and extrinsic dimensions of academic drive on a five-point Likert scale.

Mastery Goal Orientation. The Personal Achievement Goal Orientations Scale (Midgley et al., 2000; Greek adaptation by Gonida & Leontari) was employed. The Mastery subscale measures students' focus on developing competence and improving skills, rated on a five-point Likert scale.

Other Individual Constructs. Self-concept, self-efficacy, and self-esteem were assessed with the My Views on My Abilities and Performance scale (Dermitzaki & Efklides, 2000; Harter, 1999).

Contextual Variables. Parental support, peer support, and school climate were measured using the Multidimensional Scale of Perceived Social Support (Theofilou, 2015) and the short version of the Learning Climate Questionnaire (LCQ; Dimitropoulou et al., 2008). Community perceptions (support, safety, activity, friendships) were measured with the Neighborhood Youth Inventory (Chipuer et al., 1998).

Future Expectations. The Future Expectation Scale for Adolescents (FESA; McWhirter & McWhirter, 1997) was used, focusing on the education and work subscales. Seven items were rated on a five-point Likert scale, with higher scores indicating stronger expectations.

Academic Achievement. Students' self-reported term grades in Modern Greek and Mathematics were collected. Although not standardized tests, self-reports of grades have demonstrated high validity against school records (Kuncel et al., 2005; Ratelle & Duchesne, 2014). All instruments had previously demonstrated strong psychometric properties internationally. For the present study, validated Greek versions were used where available (e.g., MSPSS, LCQ). Where no Greek version existed, translation and back-translation procedures were applied, followed by pilot testing with adolescents to ensure clarity and

cultural relevance. Construct validity was further confirmed via exploratory factor analysis, while internal consistency reliability was excellent (Cronbach’s α values reported in Tab. 2).

2.3 Procedure

Ethical approval was obtained from the Ethics Committee of the Hellenic Open University, the Greek Institute of Educational Policy, and the Ministry of Education. Schools were contacted through the Ministry’s electronic platform. Parental consent was secured electronically, with paper versions provided where needed but the actual questionnaire was completed at home. The survey was administered anonymously during the 2020–2021 school year. In the qualitative phase, 26 students (with parental consent) participated in semi-structured interviews exploring their perceptions of motivation, community, and future expectations. Interviews were audio-recorded, anonymised, transcribed verbatim, and analysed thematically. Participation was voluntary, and informed consent was obtained electronically from parents/guardians before students were invited to complete the survey. Students were informed that participation was anonymous, that they could withdraw at any time without penalty, and that confidentiality was strictly ensured. No identifying information was collected.

2.4 Data Analysis

Quantitative analyses were performed using SPSS v26. Descriptive statistics summarized demographic and study variables. Bivariate relationships were examined with Spearman correlations. Hierarchical linear regression tested the predictive power of academic motivation and mastery goals on work expectations, controlling for demographic and contextual factors. Statistical significance was set at $p < .05$.

Qualitative data were analysed thematically (Braun & Clarke, 2006) using NVivo. Codes were derived inductively and deductively, clustered into themes such as motivation, contextual influences, and aspirations. Integration occurred through triangulation, where qualitative insights were used to interpret the strength and meaning of quantitative associations. Although all variables were collected via self-report, procedural remedies—including anonymous participation and the use of distinct instruments for each construct—were implemented to minimize common-method bias (Chan, 2009)

Table 1. Participant Demographics (N = 193)

Variable	n (%) / M (SD)
Age (years)	13.7 (1.1)
Gender	
– Boys	84 (43.5%)
– Girls	109 (56.5%)
Ethnicity	
– Greek	182 (95.3%)
– Other	9 (4.7%)
School type	
– Public	66 (34.2%)
– Private	127 (65.8%)
Parental education (highest level)	

– University degree	71 mothers (37%), 74 fathers (38.5%)
Living arrangement	
– Both parents together	149 (78%)
– Other	44 (22%)
Present grades	
–Language and Literature	16.3 (2.2)
–Mathematics	16.6 (2.6)

Table 2. Reliability of Key Scales

Construct / Scale	Cronbach's α
Academic Motivation (ACES)	.95
Mastery Goal Orientation (PAGO Scale)	.95
Parental Involvement	.85
Self-concept / self-efficacy (Dermitzaki & Efkliides)	
Self Concept Language	.96
Self Esteem Language	.95
Self Efficacy Language	.95
Self Concept Mathematics	.97
Self Efficacy Mathematics	.97
Self Esteem Mathematics	.97
Parental support (MSPSS subscale)	.98
Peer support (MSPSS subscale)	.96
School climate (LCQ-short)	.97
Community support (NYI subscale)	.97
Community safety (NYI subscale)	.92
Community activity (NYI subscale)	.88
Community friendships (NYI subscale)	.81
Future expectations (FESA – education & work)	.96

3 Results

3.1 Quantitative Results

3.1.1 Choice of Statistical Techniques

We used Spearman's ρ to examine associations because several variables were Likert-type and normality tests (Kolmogorov–Smirnov/Shapiro–Wilk) showed deviations from normality; Spearman is robust to non-normality and rank-order appropriate. To assess prediction, we estimated hierarchical linear regressions focusing on the relative contribution of academic motivation and mastery-goal orientation to work expectations, controlling for

demographics and contextual factors. The 1st block of variables included the demographics of the students' as well as their grades in language/literature and mathematics, which were entered in the model (method: enter), in order for the final results to be controlled for these variables. In the 2nd block, individual constructs were entered in the model using the stepwise method (p for entry 0.05, p for removal 0.10). In the 3rd block, Motivation, Mastery Goal Orientation and all other Contextual Variables were entered in the model using the stepwise method (p for entry 0.05, p for removal 0.10). In terms of sensitivity analysis, the hierarchical linear regression was conducted separately in public and private schools. Regression assumptions were satisfactory: residual plots suggested linearity and homoscedasticity; Durbin–Watson = 2.20 supported independence of errors; multicollinearity was low (all VIFs < 5). Due to lack of normality in the dependent variable's distribution, linear regression was conducted after having the dependent variable logarithmically transformed. We also ran exploratory factor analyses (EFA) to check construct validity for translated instruments (see Method), which reproduced expected structures.

3.1.2 Descriptive Statistics

Students reported high achievement (Language & Literature: $M = 16.3$, $SD = 2.2$; Mathematics: $M = 16.6$, $SD = 2.6$). Work expectations were moderate-to-high ($M = 3.51$, $SD = 0.95$, 1–5 scale). Mean levels of academic motivation ($M = 32.75$; $SD = 7.34$; theoretical range 9–45) and mastery goals ($M = 3.05$; $SD = 0.97$; theoretical range 1–5) were above the scale midpoint.

Work expectations scale was significantly and positively correlated with all other under study scales (ρ range from .20 to .75; $p < .05$); **Table 3**. Greater motivation ($\rho = .75$; $p < .001$) and greater mastery Goal Orientation ($\rho = .74$; $p < .001$) scores were significantly associated with greater expectations (**Figure 1** and **Figure 2** respectively). Patterns held across junior (first grade; $n = 88$) and senior (third grade; $n = 105$) subgroups. In juniors, motivation ($\rho = .71$, $p < .001$) and mastery goals ($\rho = .73$, $p < .001$) related strongly to expectations; in seniors, effects were comparable ($\rho = .77$ and $.72$ respectively, $p < .001$).

Table 3. Descriptive measures of under study scales and their Spearman correlation coefficients (ρ) with work expectations scale

	Mean (SD)	Spearman ρ coefficient with Future expectations (FESA – education & work)
Academic Motivation (ACES)	32.75 (7.34)	.75***
Mastery Goal Orientation (PAGO Scale)	3.05 (0.97)	.74***
Parental Involvement	3.00 (0.53)	.58***
Self-concept / self-efficacy (Dermitzaki & Efklides)		
Self Concept Language	3.31 (0.97)	.64***
Self Esteem Language	3.29 (0.94)	.65***
Self Efficacy Language	3.29 (0.93)	.65***
Self Concept Mathematics	3.26 (1.09)	.56***
Self Efficacy Mathematics	3.32 (1.09)	.55***
Self Esteem Mathematics	3.25 (1.06)	.60***

Parental support (MSPSS subscale)	5.20 (1.56)	.64***
Peer support (MSPSS subscale)	5.27 (1.28)	.54***
School climate (LCQ-short)	4.84 (1.47)	.55***
Community support (NYI subscale)	19.50 (8.34)	.41***
Community safety (NYI subscale)	20.54 (4.25)	.36***
Community activity (NYI subscale)	12.15 (4.47)	.31***
Community friendships (NYI subscale)	11.42 (4.08)	.20**

* $p < .05$; ** $p < .01$; *** $p < .001$

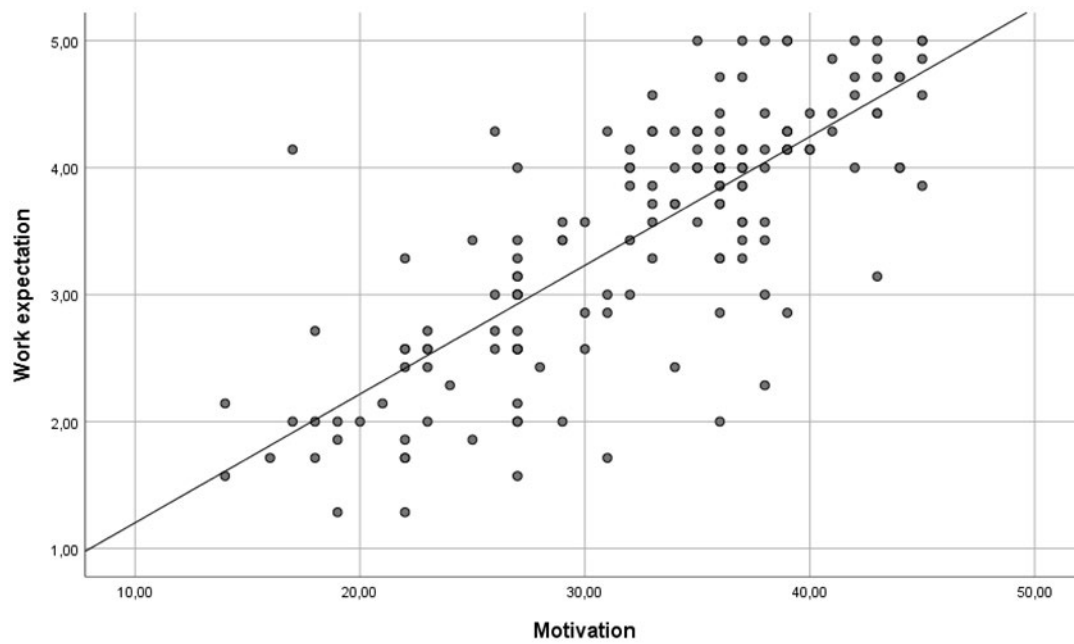


Figure 1. Correlation of Motivation scale with Work expectation scale

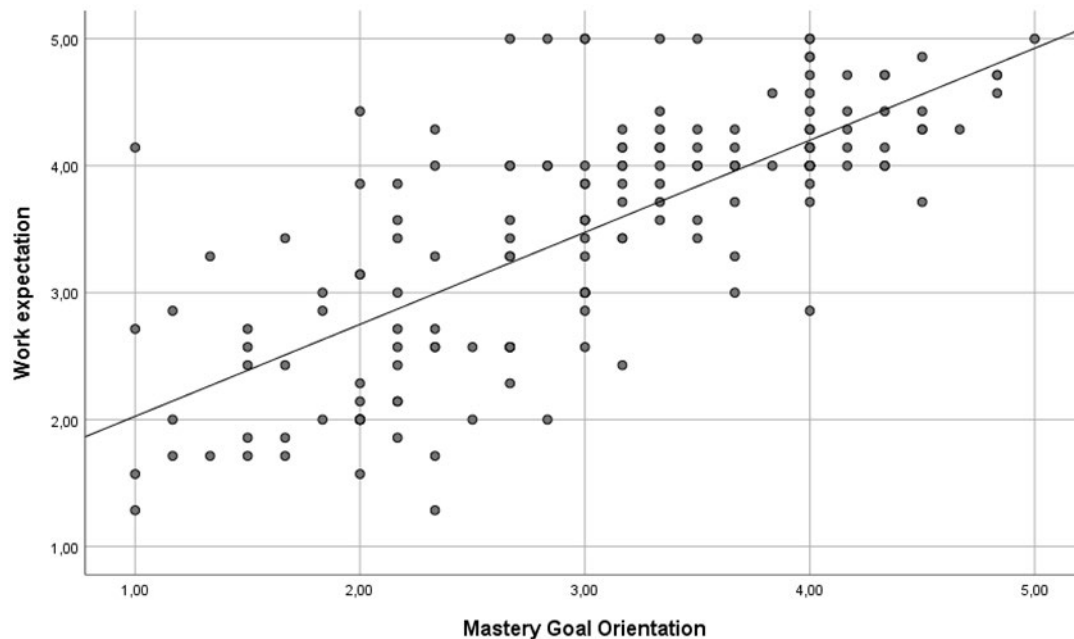


Figure 2. Correlation of Mastery Goals orientation scale with Work expectation scale

Via hierarchical regression analysis it emerged that initially students' living situation ($\beta=0.052$; $p=.017$) and their grades in Language and Literature ($\beta=0.017$; $p=.008$) as well as in Mathematics ($\beta=0.017$; $p<.001$) were significantly associated with their work expectation score (step 1 of the analysis presented in Table 4). When individual constructs were entered in the analysis (steps 2 & 3), it was found that Self Concept score in Language ($\beta=0.071$; $p<.001$) and Self Efficacy score in Mathematics ($\beta=0.038$; $p=.001$) were significantly associated with students' work expectation score. Then, with the addition of the contextual variables (steps 4 to 7), it was found that at the final model, students' demographics and their personal variables were no longer significantly associated with their score in Work expectation scale ($p>.05$). On the contrary, scores in Motivation ($\beta=0.006$; $p<.001$), Mastery Goal Orientation ($\beta=0.039$; $p<.001$), Safety in neighborhood ($\beta=0.004$; $p=.028$) and peer support ($\beta=0.013$; $p=.037$) scales were significantly and positively associated with Work expectation scale. Out of these four variables, Motivation and Mastery Goal Orientation were more important, according to their standardized coefficients (betas were .34 for Motivation, .28 for Mastery Goal Orientation, .12 for Safety in neighborhood and .12 for peer support). The model explained overall 67% of the variance in work expectations ($R^2_{adj} = .67$). The addition of motivation scale increased the variance explained by 11% and the addition of Mastery Goal Orientation by 2%.

In the junior subgroup, both motivation and Mastery Goal Orientation continued to be significantly associated with Work expectation scale ($\beta=0.007$; $p=.012$ and $\beta=0.029$; $p=.041$ respectively). Peer support and safety in neighbourhood were not significantly correlated with work expectations in this subgroup, but activity in neighbourhood was found to be significantly associated with expectations ($\beta=0.05$ $p=.037$). In the senior subgroup, Motivation ($\beta=0.006$; $p=.014$), Mastery Goal Orientation ($\beta=0.056$; $p=.001$), Safety in neighborhood ($\beta=0.008$; $p=.002$) were found to be significantly correlated with expectations.

In order to address the private-school overrepresentation, hierarchical regression analysis was done separately for private and public schools, in terms of sensitivity analysis. It was found that Mastery Goal Orientation scale remained significantly associated with Work Expectation scale ($\beta=0.068$; $p<.001$ for public schools and $\beta=0.028$; $p=.026$ for private schools), while motivation scale was significantly associated with Work Expectation scale only in private schools ($\beta=0.028$; $p=.026$). On the contrary, Safety in neighborhood ($\beta=0.008$; $p=.043$) and Perceived sense of support from my friends ($\beta=0.026$; $p=.025$) were significantly associated with Work Expectation scale only in public schools.

Table 4. Hierarchical linear regression results with work expectation scale as dependent variable

	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6		Step 7	
	β (95% CI)+	P	β (95% CI)+	P	β (95% CI)+	P	β (95% CI)+	P	β (95% CI)+	P	β (95% CI)+	P	β (95% CI)+	P
Gender (Girls vs Boys)	-0.021 (-0.057 – 0.015)	.255	-0.039 (-0.071 – 0.007)	.017	-0.024 (-0.056 – 0.007)	.133	-0.024 (-0.052 – 0.005)	.102	-0.015 (-0.043 – 0.012)	.279	-0.011 (-0.038 – 0.016)	.415	-0.012 (-0.039 – 0.015)	.381
Age	-0.013 (-0.029 – 0.003)	.112	-0.007 (-0.021 – 0.007)	.350	-0.003 (-0.017 – 0.011)	.674	0.005 (-0.008 – 0.017)	.435	0.004 (-0.008 – 0.016)	.560	0.005 (-0.007 – 0.017)	.421	0.004 (-0.007 – 0.016)	.447
Ethnicity (Other vs Greek)	0.038 (-0.04 – 0.117)	.338	-0.017 (-0.088 – 0.053)	.624	-0.027 (-0.095 – 0.041)	.429	-0.031 (-0.091 – 0.03)	.317	-0.012 (-0.071 – 0.047)	.682	-0.01 (-0.068 – 0.047)	.721	-0.01 (-0.067 – 0.047)	.727
Type of school (private vs public)	-0.011 (-0.051 – 0.028)	.569	-0.023 (-0.058 – 0.011)	.188	-0.018 (-0.051 – 0.016)	.297	-0.019 (-0.049 – 0.011)	.213	-0.015 (-0.044 – 0.014)	.304	-0.004 (-0.033 – 0.025)	.791	-0.005 (-0.033 – 0.024)	.755
Maximum parental educational level ¹	0.014 (-0.006 – 0.034)	.169	0.008 (-0.009 – 0.026)	.358	0.003 (-0.014 – 0.02)	.715	0.001 (-0.014 – 0.016)	.900	0.001 (-0.014 – 0.016)	.897	-0.001 (-0.016 – 0.013)	.853	-0.004 (-0.019 – 0.01)	.565
Living with both parents (Yes vs No)	0.052 (0.009 – 0.095)	.017	0.028 (-0.01 – 0.065)	.154	0.025 (-0.012 – 0.061)	.186	0.023 (-0.01 – 0.055)	.165	0.026 (-0.005 – 0.058)	.099	0.018 (-0.013 – 0.049)	.265	0.016 (-0.014 – 0.047)	.294
Grades in Language and Literature (present year)	0.017 (0.004 – 0.029)	.008	-0.012 (-0.025 – 0.001)	.081	-0.004 (-0.017 – 0.01)	.571	-0.003 (-0.015 – 0.009)	.668	-0.002 (-0.014 – 0.009)	.691	-0.003 (-0.015 – 0.008)	.552	-0.004 (-0.015 – 0.007)	.513

Grades in Mathematics (present year)	0.017 (0.008 – 0.026)	<.001	0.015 (0.008 – 0.023)	<.001	0.004 (-0.005 – 0.014)	.392	0.004 (-0.005 – 0.013)	.371	0.003 (-0.005 – 0.012)	.445	0.002 (-0.006 – 0.01)	.651	0.002 (-0.006 – 0.01)	.599
Self Concept Language			0.089 (0.064 – 0.113)	<.001	0.071 (0.045 – 0.097)	<.001	0.03 (0.003 – 0.056)	.027	0.017 (-0.009 – 0.043)	.200	0.017 (-0.009 – 0.042)	.198	0.017 (-0.009 – 0.042)	.198
Self Efficacy Mathematics					0.038 (0.017 – 0.06)	.001	0.015 (-0.005 – 0.035)	.142	0.013 (-0.007 – 0.032)	.198	0.015 (-0.004 – 0.034)	.122	0.015 (-0.004 – 0.034)	.122
Motivation							0.01 (0.007 – 0.013)	<.001	0.008 (0.004 – 0.011)	<.001	0.007 (0.004 – 0.01)	<.001	0.006 (0.003 – 0.01)	<.001
Mastery Goal Orientation									0.037 (0.017 – 0.058)	.001	0.041 (0.02 – 0.061)	<.001	0.039 (0.019 – 0.06)	<.001
Community safety											0.005 (0.002 – 0.008)	.003	0.004 (0 – 0.007)	.028
Peer support													0.013 (0.001 – 0.026)	.037
F value	9.90		17.22		17.90		24.37		25.12		25.24		24.29	
R ² adj	.31		.48		.51		.62		.64		.66		.67	
ΔR ² adj	-		.18		.03		.11		.02		.02		.01	

Note. F-values in all steps were significant at $p < .001$. Analysis was conducted after having the dependent variable logarithmically transformed

+regression coefficient (95% Confidence Interval); ¹possible range from 1 (primary school) to 6 (MSc/PhD)

3.2 Qualitative Results (Reflexive Thematic Analysis)

The thematic analysis followed Braun and Clarke's (2006, 2019, 2020, 2021) reflexive model, emphasizing the researcher's interpretive role in meaning-making rather than mechanical coding. Reflexivity was maintained through analytic memos that documented evolving assumptions and positionality, particularly regarding educational privilege and motivational norms in Greek schooling. The lead researcher, an educator with a background in psychology studies, familiar with both public and private school contexts, acknowledged potential biases toward valuing high academic achievement and maintained awareness of participants' diverse experiences.

Six interrelated themes captured how adolescents understood and enacted the motivational processes that, quantitatively, proved most predictive of their work expectations. Quotations are presented in English with Greek in brackets to preserve cultural nuance. The themes are: academic self-efficacy and identity formation, responsive pedagogical relationships, family educational capital and support systems, peer academic climate and social dynamics, the future aspiration–motivation nexus, and contextual resources and environmental influences.

Coding proceeded inductively and iteratively using NVivo. The initial codebook was developed from repeated readings of 26 transcripts and included descriptive nodes (e.g., *teacher feedback*, *family encouragement*, *peer distraction*) and latent interpretive codes (e.g., *self-efficacy negotiation*, *future orientation*). Codes were refined through constant comparison and merged into six higher-order themes. Saturation was reached by the twenty-first interview, when no new conceptual categories emerged, and existing codes were richly exemplified across cases. Credibility was strengthened through investigator triangulation—two researchers independently reviewed 20% of coded data, resolving minor discrepancies through discussion.

Academic self-efficacy and identity formation explores how students' beliefs in their academic abilities shape and are shaped by their developing sense of self within educational contexts. Students articulated nuanced self-perceptions that are linked to their effort allocation and learning engagement. High self-efficacy was associated with broad academic involvement, as reflected in J.'s comment: "I was always above 19/20... I am good in both theoretical and science subjects" [«Ήμουν πάντα πάνω από το 19... είμαι καλή...»]. Others expressed guarded but positive trajectories, emphasizing personal growth: "I've started to improve... it could be better" [«έχω αρχίσει και βελτιώνομαι, αλλά θα μπορούσε και καλύτερα»]. These narratives underscore the centrality of self-beliefs in motivating persistence and align with the quantitative evidence that academic motivation and mastery orientation strongly predicted expectations.

Responsive pedagogical relationships highlight the importance of supportive, adaptive interactions between educators and students in fostering engagement and learning. Students emphasized the value of teachers who adapt instruction and provide individualized encouragement. K., who has dyslexia, highlighted: "my teacher helps me a lot both to understand and to try harder" [«με βοηθάει... και για να προσπαθήσω περισσότερο»]. Recognition, such as hearing "well done" [«μπράβο»], reinforced engagement, while inconsistent or overly critical feedback sometimes undermined motivation. These accounts illustrate how relational responsiveness creates mastery-oriented climates, echoing quantitative findings that link mastery goals to elevated aspirations.

Family educational capital and support systems emphasize the influence of familial resources, values, and encouragement on students' academic trajectories and persistence. Family involvement ranged from intensive early scaffolding to primarily emotional encouragement.

J. recalled: “My mother used to read with me when I was younger and taught me the right way” [«η μητέρα μου με διάβαζε μικρότερη και μου έμαθε τον σωστό τρόπο»], which laid the foundation for lasting academic habits. By contrast, K. valued her parents’ motivational role: “They encourage me to try harder” [«να με ενθαρρύνουν να προσπαθήσω περισσότερο»]. These findings suggest that family support is effective when aligned with students’ developmental needs and preferences, complementing but not replacing the powerful influence of internal motivational factors highlighted in the quantitative analyses.

Peer academic climate and social dynamics examine how peer relationships and group norms contribute to students’ academic motivation, collaboration, and belonging. Students described navigating diverse classroom engagement levels. K. observed: “Most don’t study” [«Οι περισσότεροι δεν διαβάζουν»], reflecting a challenging peer climate. Others emphasized strategies of self-regulation, such as: “how to ignore them and concentrate on the lesson” [«να τους αγνοήσω και να συγκεντρωθώ στο μάθημα»]. Positive peer interactions also played a role, with K. noting: “It helps when the person next to me explains something I don’t understand” [«με βοηθάει να πω στη διπλανή μου όταν δεν καταλαβαίνω κάτι»]. These dynamics illustrate how peers can act as both barriers and resources, consistent with the moderate quantitative associations between contextual variables and work expectations.

The future aspiration–motivation nexus captures the interplay between students’ long-term goals and their present academic drive and commitment. Students’ accounts revealed how future goals provided motivational frameworks shaping current effort. Jenny articulated a clear trajectory: “I want to get into the school I have wanted for years, computer science... to have my degree, to go for a master’s abroad” [«θέλω να περάσω στη σχολή... στην πληροφορική... να έχω πάρει το πτυχίο μου, να έχω πάει για μεταπτυχιακό στο εξωτερικό»]. For others, aspirations were more pragmatic; Katerina planned vocational studies aligned with perceived capabilities. Yet uncertainty about achieving desired outcomes sometimes dampened motivation, as seen when she tearfully admitted: “I don’t believe I am capable of passing” [«Δεν πιστεύω ότι είμαι ικανή να περάσω»]. These narratives mirror the strong statistical coupling of motivation, mastery goals, and expectations.

Contextual resources and environmental influences consider the broader institutional, cultural, and community factors that shape students’ educational experiences and outcomes. Environmental conditions are associated with learning opportunities in complex ways. J., attending a prototype school, benefited from extracurricular programs: “My school offers general journalism” [«Προσφέρει το σχολείο μου... δημοσιογραφία»]. In contrast, K. lamented overcrowded classrooms: “The ideal would be 15–16 students... with 27 it is very difficult” [«Το ιδανικό... 15–16 άτομα... με 27 είναι πάρα πολύ δύσκολο»]. Even students in affluent areas questioned resource use, with one remarking: “I think private tutoring... is a bit pointless” [«Θεωρώ ότι τα ιδιαίτερα... είναι λίγο ανούσια»]. These accounts highlight how contextual affordances and constraints matter, consistent with the moderate correlations observed between community factors and expectations, though they did not rival the predictive strength of motivational processes. The convergence between strands is clear: students’ internal motivational engines (self-efficacy, purpose, mastery orientation) organized their daily effort and framed their futures precisely the constructs that, quantitatively, showed large associations and explained ~70% of variance in work expectations. Contextual affordances (teacher responsiveness, family support, resources) amplified or constrained these processes but did not supplant them statistically. Together, the results suggest that school-addressable motivational climates (e.g., autonomy support, recognition, mastery-goal structures) are pivotal levers for cultivating adolescents’ envisioned futures.

Reflexively, the interpretation recognizes that thematic emphasis reflects the researcher's theoretical commitments to motivational and ecological models. Alternative readings such as greater weight on structural inequality remain possible but were judged less salient given participants' narratives of agency and self-efficacy. This transparent analytic positioning supports the trustworthiness and transferability of findings (Nowell et al., 2017; Lincoln & Guba, 1985).

4 Discussion

This study examined the possible role of academic motivation and mastery goal orientation in shaping adolescents' work expectations, within an ecological framework. Three hypotheses were advanced. First, that motivation and mastery goals would positively be associated with expectations; second, that contextual factors (e.g., community support, safety, peer and family influences) would also be linked further; and third, that these patterns might differ by school grade.

Findings clearly supported the first hypothesis: motivation and mastery goals showed strong positive correlations with expectations ($\rho = .74-.75$) and emerged as the most important, among the significant, correlates in regression models, explaining 67% of variance. This is consistent with the centrality of internal motivational processes proposed by expectancy-value theory and self-determination theory (Eccles, 2005; Eccles & Wigfield, 2002; Ryan & Deci, 2020). More recent evidence reinforces this interpretation, showing that mastery orientations promote resilience and career optimism across adolescence (Kiuru et al., 2020; Schunk & DiBenedetto, 2020; Wang et al., 2023). At the same time, these results diverge from research where contextual supports explained greater variance than internal factors (Gutman & Schoon, 2012), suggesting that in the Greek context internal processes carry disproportionate weight.

The second hypothesis received only partial support. While neighbourhood support, safety, and activity were moderately correlated with expectations, only safety remained significantly associated with expectations once motivation and mastery goals were included in the analysis. It also extends Schoon and Eccles (2014) by indicating that, under certain cultural conditions, motivational factors may outweigh socioeconomic resources. Yet, caution is warranted: research by Noble et al. (2015) suggests that unmeasured socioeconomic mediators, such as home learning environments or executive function, may underlie these associations (Bradley, 1994; Bradley & Corwyn, 1996; Guo & Harris, 2000).

The third hypothesis was supported. Subgroup analyses showed consistent results across junior and senior students. This developmental continuity reinforces international evidence that mastery goals retain their influence across adolescence (Wigfield et al., 2015). However, it also challenges perspectives that expect motivational orientations to weaken with age as external pressures increase (Dietrich et al., 2013).

These findings enrich Bronfenbrenner's bioecological theory by highlighting the central role of proximal processes, in this case, motivational beliefs and mastery goals in potentially contributing to adolescents' perceived futures (Bradley et al., 2001; Petrogiannis, 2024). While microsystemic factors such as teacher responsiveness and family encouragement were clearly valued by students in the qualitative data, their influence operated indirectly through internal motivation. This echoes Bronfenbrenner's (1993) argument that proximal processes are the engines of development, but it nuances the model by showing that their effectiveness is culturally mediated.

International research often emphasizes the weight of structural resources (O'Brien et al., 2021; Sirin, 2005; Gutman & Schoon, 2012). By contrast, the present findings suggest that in Greece, relational and motivational processes may override socioeconomic constraints. This extends Schoon and Eccles (2014) by demonstrating how cultural and institutional settings, such as Greece's dual reliance on public schooling and private tutoring, are associated with the balance between ecological layers (Schoon & Parsons, 2002). At the same time, our qualitative evidence showed that even privileged students sometimes questioned the utility of additional resources, casting doubt on the assumption that resource access alone guarantees enhanced outcomes.

Finally, our data also speak to debates in goal theory. Some scholars argue that performance goals can be adaptive under competitive conditions (Senko & Dawson, 2017). Yet, such patterns were absent in our study, where mastery goals dominated. This divergence suggests that the benefits of performance orientations may be culturally contingent, depending on the educational climate and value placed on recognition and relational support.

Several alternative explanations must be acknowledged. First, the reliance on self-report measures raises the possibility of socially desirable responding, potentially inflating associations (Chan, 2009). Second, the sample was skewed toward private schools—overrepresented compared to national distribution (ELSTAT, 2020), which may limit generalizability to public-school students with fewer resources. Third, although instruments were carefully translated and tested, not all were standardized in Greek populations, raising concerns of cultural validity. Fourth, socioeconomic mediators such as parental income or access to digital resources were not directly measured, yet prior work (Noble et al., 2015) indicates these can potentially be related to the students' outcomes. Finally, the cross-sectional design prevents causal inferences: motivation may predict expectations, but equally, ambitious expectations may reinforce motivation (Nurmi, 1991).

Our findings confirm the centrality of motivational constructs within Bronfenbrenner's framework but extend it by illustrating how contextual supports exert influence indirectly. This refinement suggests the need for integrative models combining ecological and motivational perspectives, particularly in culturally diverse settings. For educators, the results highlight the importance of creating mastery-oriented classroom climates. Teacher training should emphasize relational responsiveness and constructive feedback, consistent with evidence that teacher–student relationships yield moderate-to-strong associations with achievement (Brookhart, 2011; Hattie, 2009; Roorda et al., 2011). Schools should also provide structured opportunities for peer collaboration, supporting the adaptive networks students described (Verdugo et al., 2022). At policy level, interventions should not only address structural inequalities but also explicitly nurture motivational resources. This could include partnerships between schools, municipalities, and NGOs to deliver extracurricular programs that build both competence and aspirations, such as career literacy workshops and mentoring initiatives. Such approaches align with national strategic priorities on equity and skill development (Ministry of Education, 2023) and echo international recommendations for holistic career education (OECD, 2019).

Future research should build on these findings through more sophisticated methodological approaches and broader contexts. Longitudinal studies are needed to clarify the potential causal direction between motivation, mastery goals, and adolescents' expectations, moving beyond the cross-sectional design of the present study. Mixed-methods designs that combine large-scale surveys with qualitative interviews or focus groups would provide both generalizable patterns and rich contextual insights. Further investigations should also explore potential mediators and moderators of these relationships, such as the role of digital

communities, parental educational capital, and gendered expectations. Finally, cross-cultural replications are essential to test the cultural specificity of the observed patterns, particularly the dominance of mastery goals over performance orientations, and to assess whether these findings hold in diverse educational and sociocultural contexts.

5 Conclusion

This study investigated the role of academic motivation and mastery goal orientation in shaping adolescents' work expectations, situated within an ecological framework. Using a mixed-methods design with 193 Greek junior high school students, the findings revealed strong associations between motivation, mastery goals, and adolescents' aspirations, while community and family support showed more moderate links. Regression models indicated that motivational constructs were the most consistent correlates of expectations across grade levels, though qualitative insights highlighted the nuanced roles of teacher responsiveness, family encouragement, peer dynamics, and contextual resources.

These results underscore the importance of considering both individual and ecological dimensions when examining adolescent future orientations. They also suggest that, within the Greek educational context, motivational processes are more strongly connected to students' aspirations than structural or demographic factors. However, the correlational nature of the design limits conclusions about causality, and alternative explanations such as socioeconomic mediators remain plausible. Overall, the study contributes to international debates by extending ecological and motivational theories with culturally specific evidence. It calls for educational practice and policy that support mastery-oriented learning environments and responsive pedagogical relationships, while recognizing the diverse pathways through which adolescents construct their academic and occupational futures.

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AI-Use Disclosure

During the copy-editing stage, the authors used ChatGPT (OpenAI, August 2025 version) to improve grammatical and syntactical clarity. No AI tools were used to generate research data, interpret results, or draft substantive content.

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