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Teacher Influence and Student Motivation in Cross-Interest Economics Learning for SDG 4 (Quality Education)

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ABSTRACT

Objective: *This study aims to analyse the partial influence of teachers' roles and student motivation on the decision to choose cross-interest economic programmes among high school students.* ***Method:*** *An explanatory quantitative method was employed to examine the relationship between variables using a questionnaire as an instrument. The sampling technique used saturated sampling, including all tenth-grade students at Petra Christian High School 3 Surabaya. Data analysis was conducted using SEM-PLS with the assistance of WarPPLS software.* ***Results:*** *This research found that the role of teachers has a positive and significant influence on the decision to choose interdisciplinary economics programs, while motivation has no effect. This emphasises the importance of the teacher's role as well as the need for improvements in economics teaching to make it more engaging.* ***Novelty:*** *Contextualising research in the latest location and time is a novelty because learning has changed since the revision of government policy. Teacher training to make economics a flagship subject is also important and urgent today.*

INTRODUCTION

The learning process is one of the most complex aspects of education (Baumgartner, 2024; Fındık, 2024). This process involves a series of stages in which students experience learning, growth, and development (Jimenez et al., 2024; Ying & Jingwen, 2025). This aspect is particularly highlighted at various levels of education in developing countries such as Indonesia. The implementation of the Kurikum Merdeka in Indonesia requires learning that focuses on the needs of students (Amalia et al., 2024), especially at the senior high school level. This is attempted as an initial step to promote the fourth Sustainable Development Goal (SDGs), which is quality education.

Focusing on the Senior High School (SMA) level, the implementation of learning begins in the tenth grade with the provision of general subjects and no specific packages to choose from. All students receive the same subjects at this level. Only in the eleventh grade do they receive the Cross-Interest Learning Programme which is categorised into sciences such as biology, chemistry, and so on, as well as social-humanities subjects such as languages, geography, and economics (Arnentis et al., 2022; Riafadilah & Dewi, 2019). This embodies a student-centred approach and accommodates learning according to the potential and genuine desire of students to focus on one particular field of expertise.

One of the Interdisciplinary Electives offered in most high schools in Indonesia is economics. The Economics Interdisciplinary Elective offers various opportunities and has a significant impact on students' futures (Elshaiekh et al., 2024; Wang et al., 2025). Considering that economics is a flexible field of study, highly relevant to current developments, and consistently in demand (Goodwin et al., 2024; Oommen, 2017),

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especially for those with a background in social sciences. By taking the Economics Interdisciplinary Elective, students will have good options after graduation, such as continuing their studies in related fields such as economics, management, finance, and so on, or becoming entrepreneurs. This opportunity is very promising today.

Basically, the decision to choose Cross-Interest Learning is influenced by several factors, one of which is internal motivation. Motivation is related to decisions because stimuli provided by individuals or groups can influence someone to take action (Şengöz, 2025; Smith et al., 2024), which is generally driven by a desire or need, with the aim of achieving satisfaction for an individual or a specific group. If students have a high motivation in the field of economics, their choice of economic Cross-Interest Learning will also be higher. This reflects the implications of Self-Determination Theory that interest and satisfaction drive the urge to act or make decisions (Deci & Ryan, 2015; Ryan & Deci, 2020; Schutte & Malouff, 2021).

The next factor is an external factor, namely the influence of teachers. Teachers often play a crucial role in influencing students' decisions, both directly and indirectly (A. J. Martin & Collie, 2019; Sidik et al., 2018), particularly in learning and subject selection. According to various studies, the role of teachers is not only as facilitators of knowledge but also as motivators, role models, and sources of inspiration for student (Baker, 2021; N. Martin & Broumi, 2023). Teachers with high competencies, both in academic fields and psychological approaches, can influence students' interests in choosing certain subjects. Additionally, other research indicates that the quality of interaction between teachers and students affects students' motivation and interest in subjects. Teachers who provide emotional and academic support tend to be able to enhance students' engagement in learning (Longakit et al., 2025; Shen et al., 2024).

This phenomenon also occurs at Petra Christian High School 3 in Surabaya, East Java. Tenth-grade students are already faced with the decision of choosing Cross-Interest Learning that aligns with their long-term plans. Based on preliminary research results, there has not yet been an in-depth study from the students' perspective on the factors influencing the choice of economic Cross-Interest Learning. This is urgent to examine in order to understand which internal and external factors have an impact and, in the long term, could optimise economic Cross-Interest Learning at the school.

Several previous studies have examined the factors influencing the decision to choose Cross-Interest Learning for students. Research by Kortin et al., (2020) states that the variables of interest, motivation, family, teachers, and peers simultaneously have a significant effect on the decision to choose the economic cross-interest program. Meanwhile, Fridayanti, (2018) revealed that career outlook influences the decision to choose Cross-Interest Learning. Research by Junaidi et al., (2019) highlights that the aspects of aspirations and talent in the field of economics are actually the most important.

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Based on the presentation, a research gap was identified, namely that most previous studies were conducted in public or private schools with varying learning cultures, resulting in different outcomes for each finding. Furthermore, it is difficult to find recent research that re-examines the relevance of these factors in the current context with various policy changes. Therefore, this study aims to re-analyse the influence of internal factors, namely motivation, and external factors, namely the role of teachers, on the decision to choose Cross-Interest Economic Learning.

The novelty of this research lies in the contextualisation of the study location at Petra 3 Christian High School and the most recent time context that has never been investigated before. The theoretical contribution of the research is to add empirical studies in the field of educational psychology and educational management regarding the influence of motivation and the role of teachers on students' academic decision-making. The practical contribution is to provide a basis for the development of more personalised guidance and counselling strategies to support students in choosing cross-interest paths at school.

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studies in the field of educational psychology and educational management regarding the influence of motivation and the role of teachers on students' academic decision-making. The practical contribution is to provide a basis for the development of more personalised guidance and counselling strategies to support students in choosing cross-interest paths at school.

RESEARCH METHOD

This study uses an explanatory quantitative research method to determine the partial influence between variables. The research employs a series of questions in the form of a questionnaire distributed to respondents, namely tenth-grade high school students. A 1-5 Likert scale is used in the questionnaire. The entire process is conducted according to research principles. The population in this study consists of all students of Petra 3 Christian High School Surabaya who are undertaking cross-interest economics learning in the 2025 academic year.

Given that the population size is relatively small and still within the limits of data collection capabilities, this study uses a census method (population study). All instruments in the research underwent validity and reliability tests.

Validity and Reliability Test

Table 1. Test results convergent validity.

No	Indicator	Factor loading	Information	P-value	Information
1	Teacher (TCH)	0.749	Fulfilled	<0.001	Fulfilled
2	Teacher (TCH)	0.822	Fulfilled	<0.001	Fulfilled
3	Teacher (TCH)	0.624	Fulfilled	<0.001	Fulfilled
4	Motivation (MOT)	0.100	Fulfilled	<0.001	Fulfilled
5	Motivation (MOT)	-0.086	Fulfilled	<0.001	Fulfilled
6	Motivation (MOT)	-0.017	Fulfilled	<0.001	Fulfilled
7	Decision (DCS)	0127	Fulfilled	<0.001	Fulfilled
8	Decision (DCS)	-0.210	Fulfilled	<0.001	Fulfilled
9	Decision (DCS)	0.082	Fulfilled	<0.001	Fulfilled

From results Test validity convergent on given decision based on the following criteria: If load factor (example For TCH = 0.749 > 0.30) > so meet convergent validity. If load factor significant (example For TCH = 0.749 p< 0.001) then it meets convergent validity <0.05.

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Table 2. Test results discriminant validity on X1.

No	Indicator	Loading	Cross loading		Information
		X1	X2	Y1	
1	TCH	0.749	-0.029	0.202	Fulfilled
2	TCH	0.822	-0.087	0.053	Fulfilled
3	TCH	0.624	0.149	-0.313	Fulfilled

Table 3. Test results discriminant validity on X2.

No	Indicator	Loading	Cross loading		Information
		X2	X1	Y1	
1	MOT	0.763	0.100	-0.173	Fulfilled
2	MOT	0.754	-0.086	0.151	Fulfilled
3	MOT	0.664	-0.017	0.028	Fulfilled

Table 4. Composite reliability coefficients.

No.	Variables	Composite reliability coefficients	Information
1	TCH	0.778	Fulfilled
2	MOT	0.772	Fulfilled
3	DCS	0.871	Fulfilled

From the Composite Reliability results In the table above it can be seen that all coefficient on or more big from 0.7 so that fulfil Composite Reliability Criteria.

The data analysis in this study employs Structural Equation Modeling (SEM) with the assistance of WarPPLS software. Some of the analysis steps in this research include the outer model and inner model.

RESULTS AND DISCUSSION

Results

Results Analysis Descriptive

Descriptive statistical analysis aims to provide an overview of the characteristics of research data consisting of variables such as the Human Development Index (HDI), Open Unemployment Rate (OUR), and Poverty Rate in West Papua Province during the period 2015–2024.

This study was conducted at Petra 3 Christian High School, Surabaya, with 102 students as respondents. Respondents consisted of 11th and 12th grade students, with an age range of 16 to 17 years. Students who participated in this study came from both genders, namely male and female. From the results of the questionnaire distribution,

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descriptive analysis provides an overview of the characteristics of the respondents. Most of the respondents were 17 years old, indicating that they were in the end time school intermediate on. Distribution type sex relatively balanced, with proportion man And Woman Which almost The same. Student class 11 And 12 chosen as respondents because they are in a critical phase in academic decision making, including election program cross interest. Analysis descriptive This shows that the factors of age, grade, and gender provide a holistic picture of the demographics of the students who participated in this study. These data also indicate that students at this age are in a critical stage of development, where decisions academic they can influenced by various factor, including role Teacher and learning motivation. Therefore, understanding these demographic characteristics is important to further analyze how these factors influence their decisions in choosing cross-interest economic programs.

Model Fit

Table 5. Model fit and quality indices.

No.	Model fit and quality indices	Fit criteria	Analysis results	Information
1	Average path coefficient (APC)	P<0.05	0.231	Fulfil
2	Average R-squared (ARS)	P<0.05	(P=0.004)	condition model fit
3	Average adjusted R-squared (AARS)	P<0.05	0.178	Fulfil
4	Average block VIF (AVIF)	acceptable if <= 5, ideally <= 3.3	(P=0.016)	condition model fit
5	Average full collinearity VIF (AFVIF)	acceptable if <= 5, ideally <= 3.3	0.161	Fulfil
6	GoF Tenenhaus (GoF)	small >= 0.1, medium >= 0.25, large >= 0.36	(P=0.023)	condition model fit
7	Sympson's paradox ratio (SPR)	acceptable if >= 0.7, ideally = 1	1,328	Ideal
8	R-squared contribution ratio (RSCR)	acceptable if >= 0.9, ideally = 1	1.114	Ideal
9	Statistical suppression ratio (SSR)	acceptable if >= 0.7	0.323	Medium
10	Nonlinear bivariate causality direction ratio (NLBCDR)	acceptable if >= 0.7	1.000	Ideal

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Results Testing Hypothesis

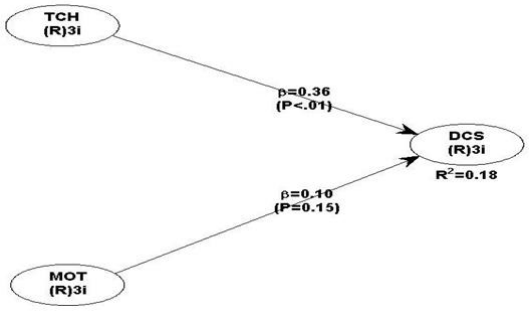

Figure 1. Comparison of success rate of items in the experimental and control class.

Table 6. Hypothesis test results

No.	Connection between Variables (Exogenous Variables→variables Endogenous)		Path coefficient	*p-value*	Information
1	TCH	DCS	0.364	<0.001	Very significant
2	MOT	DCS	0.099	0.154	Not significant

From results test hypothesis on can explained more carry on the interpretation is as follows: H1 = Influence (TCH) to (DCS). The influence of (X1) on (Y1) has a path coefficient of 0.364 and because p is smaller than 0.05, it is said to be very significant, so the hypothesis is accepted. The positive path coefficient of 0.364 means that the better the TCH, the better the DCS. increasingly increasing. H2 = Influence (MOT) to (DCS) The influence of (MOT) on (DCS) has a path coefficient of 0.099 and because p is greater than 0.05, it is said to be insignificant, so the hypothesis is rejected. This means that the better or bad MOT will not affect DCS.

Discussion

The Role of Teachers in the Decision to Choose Cross-Interest Economic Learning. Based on the output from SEM-PLS, it is known that the role of the teacher has a positive and significant effect on students' decisions to choose Cross-Interest Economics Learning. This means that the higher the role of the teacher in the learning process both in and outside the classroom, the greater the tendency of students to choose the cross-interest economics programme.

Teachers at school are not only facilitators of learning, but also motivators and inspirers (Irshad & Amjad, 2025; Patel et al., 2020; Prakoso et al., 2024). The role of teachers, especially those teaching economics, plays a significant part in this as they represent the appeal of economic learning and the concepts presented (Prakoso,

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Wahyono, et al., 2025). Teachers succeed in convincing students that economics is important to study in depth for the sake of education or future careers by considering current conditions. Teachers, both verbally and non-verbally, successfully encourage more rational and independent decision-making in students.

This research aligns with the study by Kortin et al., (2020) that the role of teachers is proven to be important and irreplaceable. In the context of cross-interest economics learning, teachers can bridge students' understanding from other disciplinary backgrounds to see the advantages of economics in that field. This success reflects the success of Self-Determination Theory, showing that teachers can also fulfil the three basic psychological needs of students, which are autonomy, competence, and relatedness (Marshik et al., 2017; Wood, 2019).

Student Motivation towards the Decision to Choose Interdisciplinary Economic Learning

Based on the results from SEM-PLS, it is known that student motivation does not have a significant effect on the decision to choose Cross-Interest Learning in economics at school, meaning that the level of learning motivation possessed by students does not directly influence their decision to choose Cross-Interest Learning in economics.

This motivation is not yet strong enough to serve as a determining factor in academic decision-making. This reflects that the decision to choose an economic cross-interest is more influenced by external factors, one of which is the role of teachers as found previously. Personal interest in learning economics has not emerged, and can only appear when there is extrinsic motivation. This finding becomes an additional task for teachers to foster students' internal motivation related to economics through more appropriate learning (Prakoso, RoziqiFath, et al., 2025).

Several external aspects that show significant results on the decision to choose cross-interest are evidenced through research by (Junaidi et al., 2019), in the form of family and friendship factors. Learning strategies and guidance are very urgent to stimulate students' intrinsic motivation through contextual approaches, project-based learning, and exposure to the economic benefits in real life. This can encourage the relationship between academic motivation and academic decisions (Muho et al., 2025; Yang et al., 2025).

CONCLUSION

Fundamental Finding: This research found that the role of teachers has a positive and significant influence on the decision to choose cross-interest economic programmes in schools. The opposite was found with motivation, which had no significant effect. **Implication:** The main implication focuses on enhancing learning that must be able to accommodate students' motivation and increase internal interest in the field of economics, alongside the strong role of the teacher. Teachers are trusted by students,

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and it comes down to how to implement economics teaching that is superior and more engaging than other subjects. Programs such as teacher training or workshops to enhance the appeal of economic education are necessary**. Limitation:** This research is limited to the population, so the results cannot yet be generalised more widely. **Future Research:** Future research could examine this by involving a wider population across provinces and applying mixed methods so that the results can be optimal and have more significant implications.

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