

Influence of Intrinsic and Extrinsic Learning Motivation in College Students on Choice of Majors at State Universities

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Abstract: This study aims to discover the influence of intrinsic and extrinsic learning motivation in college students on choices of majors at state universities. Participants consisted of 556 students (in their first and third semesters, with an age range of 18-21 years) in the Faculty of Da'wa Science and Communication Science at a state university. Data on intrinsic and extrinsic motivation obtained through non-random sampling utilized a scale adapted from Harter, while choice of majors data employed a Likert scale derived from theory of determination. Multiple linear regression analysis was used to determine the effects of intrinsic and extrinsic motivation on students' choice of majors. Our results showed that extrinsic and intrinsic learning motivation have significant influence on choice of majors at state universities. Intrinsic and extrinsic learning motivation in college students contributed approximately 10.5% toward choice of majors, with a high significance level ($p = 0.000$). Intrinsic learning motivation had greater influence on choice of majors, with a beta value of 106.9, whereas extrinsic learning motivation had a beta value of 85.

Key Words: extrinsic motivation, intrinsic motivation, students, choice of majors

Abstrak: Penelitian ini bertujuan untuk menemukan pengaruh motivasi belajar intrinsik dan ekstrinsik mahasiswa pada mata kuliah pilihan jurusan di perguruan tinggi negeri. Peserta terdiri dari 556 mahasiswa (di semester pertama dan ketiga, dengan rentang usia 18-21 tahun) di Fakultas Ilmu Dakwah dan Ilmu Komunikasi di sebuah universitas negeri. Data motivasi intrinsik dan ekstrinsik yang diperoleh melalui pengambilan sampel non acak menggunakan skala yang disesuaikan dengan Harter, sedangkan data pilihan jurusan menggunakan skala Likert yang berasal dari teori determinasi. Analisis regresi linier berganda digunakan untuk mengetahui pengaruh motivasi intrinsik dan ekstrinsik terhadap pilihan jurusan mahasiswa. Hasil penelitian ini menunjukkan bahwa motivasi belajar ekstrinsik dan intrinsik berpengaruh signifikan terhadap pilihan jurusan di perguruan tinggi negeri. Motivasi belajar intrinsik dan ekstrinsik pada mahasiswa memberikan kontribusi sekitar 10,5% terhadap pilihan jurusan, dengan tingkat signifikansi yang tinggi ($p = 0.000$). Motivasi belajar intrinsik memiliki pengaruh yang lebih besar terhadap pilihan jurusan, dengan nilai beta 106,9, sedangkan motivasi belajar ekstrinsik memiliki nilai beta 85.

Kata kunci: motivasi ekstrinsik, motivasi intrinsik, siswa, pilihan jurusan

Influence of Intrinsic and Extrinsic Learning Motivation in College Students on Choice of Majors at State Universities. College students typically choose their majors at state universities only once. Since it is not easy to switch majors, if the original choice was not the correct one, it is a consequence that the student must accept. If the student cannot accept the mistake, he/she must return to the beginning to retest, although graduation is not guaranteed in this case. For students

at state universities facing this choice, they must endure sometimes-undesirable learning conditions. Choosing a major must be resolved in adolescence as part of the search for identity (DePasque & Tricomi, 2015).

Student motivation plays an important role in determining quality of education. Students usually choose a major that will prepare them for success in a profession with significant job gains (Hamdan-Mansour, Hamaideh, Azzeghaiby, Hanouneh, & Aboshai-

qah, 2015). Motivation to choose a major springs from several factors (1) economic factors, different income levels, expectations or views relating to conditions of employment, tradeoff between returns and risks of failure, (2) demographic factors: gender, SES (socio-economic status), minority status who may be able to strengthen the traditional, and (3) a mixture of demographic and economic factors (for example, differences in expected incomes of graduates of various races and genders) (Harter, 1980). Another factor is encouragement or coercion from parents (Harter, 1981).

Satisfaction and a sense of belonging and engagement correlated to internal motivation and encouraged students to consider intrinsic motivation in making decisions about choosing majors (Harter, 1980). Intrinsic motivation is an important factor in learning, allowing students to gain educational knowledge by thinking while studying (Hamdan-Mansour, Hamaideh, Azzeghaiby, Hanounch, & Aboshaiqah, 2015) and improve academic achievement (Lepper, Corpus, & Iyengar, 2005). Intrinsic motivation has been proven to be positively correlated with academic results (and the opposite with extrinsic motivation) (Poturak, 2014). Options for majors and the effects of intrinsic motivation and extrinsic motivation in learning on the choice of majors at state universities were under consideration in this study.

Choice of majors is a goal (motivation) decided students. Categories of motivation consisted of no motivation, external motivation, and internal motivation in determination of major. Students with no motivation (i.e., students not selecting their majors themselves because they feel there is no conformity and low competence) in major choice are irrelevant and have no intention in choosing their majors. External motivation relates to the selection of majors due to (1) external rules, meaning the determination of majors relies on rewards and punishments from outside the student or his/her own fulfillment; (2) introjection, meaning the determination of majors has no ego involvement and

focuses on the approval of others; (3) identification, meaning assessing the activities and objectives of that support; or (4) integration, associated with the determination of subject selection as the result of hierarchical synthesis, such as with objectives and suitability. Internal motivation is, on the other hand, the determination of majors sourced from within the students, namely because they are interested in or enjoy and are satisfied with the choice.

METHOD

This study was designed to determine the effects of extrinsic motivation and intrinsic motivation on the choices of majors by students at state universities.

Intrinsic motivation. Intrinsic motivation is motivation to engage in an activity that comes from inside students. **Extrinsic motivation.** Extrinsic motivation is motivation to engage in an activity to achieve a goal that comes from outside the individual self and his/her urges.

The participants consisted of students in one faculty within all courses offered, represented as n = 566 students, and were obtained by non-random sampling. Table 1 offers a general overview of the research subjects, consisting of first- and third-semester students at one state university in Indonesia.

Table 1. Overview of Research Subjects

	# of Students
Semester 1	305
Semester 3	251
Total Participants	556

Students in their first and third semesters from various departments were chosen as research subjects, totaling 556 people in the age range of 18-21 years, with 305 students in their 1st semesters and 251 students in their 3rd semesters. Table 2 displays the distribution of students by department.

Table 2. Overview of Research Subjects by Major

Majors	# of Students
KPI (Islamic Broadcasting Communication)	151
KESSOS (Social Welfare)	100
MD Management (Da'wah) + MHU (Management of Hajj and Umrah)	79 + 27
BPI (Guidance Counseling Islam)	85
PMI (Islamic Community Development)	34
Journalism	80
Total Participants	556

Table 5. Categories of Motivation of Students' Learning

Category	Frequency	Percentage (%)
Extrinsic Motivation in Learning	267	48%
Intrinsic Motivation in Learning	289	52%
Total	556	100%

Table 6. Overview of Student Learning Motivation by Subject

Descriptive Statistics					
	N	Extrinsic		Intrinsic	
		Mean	SD	Mean	SD
Motivation of Student Learning in MD	79	21.29	2.403	21.90	2.262
Motivation of Student Learning in Social Welfare	100	19.57	1.991	21.27	2.269
Motivation of Student Learning in KPI	151	19.68	1.940	21.15	2.102
Motivation of Student Learning in BPI	85	19.42	1.636	21.41	1.960
Motivation of Student Learning in PMI	34	19.21	1.789	20.62	2.257
Motivation of Student Learning in Journalism	80	20.24	1.970	21.14	1.979
Motivation of Student Learning in MHU	27	18.52	1.868	20.44	2.651
Total	556				

Table 7. Coefficient of Determination

Model Summary ^b										
Model	R	R-Squared	Adjusted R-Squared	Std. Error of Estimate	Change Statistics					
					R-Squared Change	F Change	df	df2	Sig. Change	F
1	.324 ^a	.105	.102	9.636	.105	32.525	2	553	.000	

a. Predictors: (Constant), Extrinsic Motivation, Intrinsic Motivation

b. Dependent Variable: Major Choice

Table 8. Partial Regression Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	36.011	4.943		7.286	.000
	Intrinsic Motivation	1.069	.196	.229	5.443	.000
	Extrinsic Motivation	.850	.205	.174	4.142	.000

a. Dependent Variable: Program Selection

tion of the students when studying at state universities (according to majors).

In Table 6, data descriptions in the extrinsic motivation column were highest for students studying in the MD department (M = 21.29, SD = 2.403), followed by students studying in the Journalism department (M = 20.24, SD = 1.970), with the rest balanced among those studying in the KPI (M = 19.68, S = 1.940), Social Welfare (M = 19.57, SD = 1.991), and PMI (M = 19.21, SD = 1.789) departments and the concentration in MHU (part of the MD specialization, with M = 18.52, SD = 1.868).

In the intrinsic motivation column in Table 6, numbers were highest in students majoring in MD (M = 21.90, SD = 2.262), followed by the BPI (M = 21.41, SD = 1.960), KPI (M = 21.15, SD = 2.102), Journalism (M = 21.14, SD = 1.979), PMI (M = 20.62, SD =

2.257) departments and, finally, the MHU concentration (M = 20.44, SD = 2.651).

The magnitude of the coefficient of determination can be seen in the adjusted R-squared, as shown in Table 7. Based on the results in Table 7, the value of R² was 0.105, meaning that the percentages of influence of extrinsic and intrinsic motivation on students' learning combined has an effective contribution of 10.5%, while the remaining 89.5% was influenced by other variables.

To determine the magnitude of each effect on students in the study, Table 8 demonstrates choice of majors. Intrinsic motivation contributed to selection of majors with a beta value of 106.9 and a significance level of p = 0.000, whereas extrinsic motivation contributed to choice of majors with a beta value of 85, with a significance level of p = 0.000.

DISCUSSION

Our results demonstrated that influence of intrinsic and extrinsic motivation on choice of majors at state universities was very significant ($p = 0.000$). The effective contribution of intrinsic motivation and extrinsic motivation on students in the study was 10.5%.

Based on our research data, the majority of students enter public universities motivated in major choice by external factors (234, or 44%), followed by lack of motivation in choice of majors (189, or 32%), and then internally motivated in choice of majors (133, or 24%). Therefore, choices of majors in public universities are clearly dominated by external factors.

Analysis descriptions for the variable of choice of majors can be described as follows: based on our study of 151 college students with the KPI major, students select this major most frequently based on external motivation, followed by no motivation, and then internal motivation. The selection of the Social Welfare major, based on our study of 100 students, was most frequently based on external motivation, followed by no motivation, with internal motivation being the least. The selection of the MD major, based on our study of 79 students, was most frequently based on external motivation, followed by internal motivation, with no motivation being the least. MHU majors (27 students) were most frequently motivated externally in choice of majors, followed by no motivation, and then internal motivation. The selection of the BPI major, based on our study of 85 students, was most frequently based on external motivation, followed by no motivation, with internal motivation being the least. The selection of the PMI major, based on our study of 34 students, was most frequently based on external motivation, followed by no motivation, with internal motivation being the least. Journalism majors (80 students) were most frequently motivated externally in choice of majors, followed by no motivation, and then internal motivation.

Options for undergraduate majors are crucial because the impact of choice of majors is correlated with stable employment, career opportunities, salary, and job satisfaction. According to theory of determination, the fact that external motivation affected choice of majors more relates to factors of punishment and fulfillment and can spring from support for the intended purpose and autonomy (Harter, 1980). Although choices of student majors in public universities were found to be dominated by external motivation, motivation to learn in public universities

was linked more frequently to intrinsic motivation than extrinsic motivation, judging by the beta value of the contribution of intrinsic motivation on students' choice of majors at 106.9, with a significance of $p = 0.000$. On the other hand, extrinsic motivation to learn in this selection of majors was 85, with a significance of $p = 0.000$. Descriptions of the research subjects show that students who had intrinsic motivation in learning were 289 (52%), while students who were motivated to learn extrinsically were 267 (48%). Study of students' learning motivation in each department found students were motivated more intrinsically rather than extrinsically.

CONCLUSION

At public universities, influence from extrinsic motivation and intrinsic motivation on students' choice of majors certainly exists. In fact, the effect is very significant. Our research found that the influence of intrinsic motivation on choice of majors in students in the study was greater than extrinsic motivation, while choices of majors were motivated externally. The effective contribution of extrinsic and intrinsic motivation was only 10.5%, so the remaining 89.5% was influenced by other variables not examined in this study.

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