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Intrinsic and Extrinsic Life Goals of University Students: Orientation and Role in Educational Success

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ARTICLE DETAILS	ABSTRACT
<p>History:</p> <p>Received: January 19, 2023 Accepted: November 28, 2023</p> <p>Keywords:</p> <p>Intrinsic Goals Extrinsic Goals Self-determination Theory Student Achievement Critical Thinking</p> <p>DOI:</p> <p>10.52700/assap.v4i2.243</p>	<p>Self-determination theory (Deci & Ryan, 2000) describes life goals as being intrinsic goals and extrinsic goals. The intrinsic goals include self-acceptance, affiliation, and community feeling; however, financial success, image, and popularity are extrinsic goals. The theory suggests that intrinsic goals are positively related to human functioning and wellbeing, while extrinsic goals are negatively related to it. Empirical studies conducted in developed and individualistic societies support the theory. This study explores the life goals of university students in a developing and collectivist society in Pakistan. The study also investigates the relationship between these goals with critical thinking skills and the academic achievement of the students. The data was collected from 193 male and female students, aged above 18 at a public sector university in Karachi. It was a survey and the study used self-administered questionnaires on demographics, intrinsic and extrinsic life goals, critical thinking skills, and academic achievement. The analysis revealed that students' intrinsic goals were significantly higher than their extrinsic goals. Also, it was found that intrinsic goals were significantly positively linked to their critical thinking, and extrinsic goals were significantly positively linked to their achievement. The findings conclude that university students are more intrinsically oriented than they are extrinsically oriented. Also, extrinsic goals may not undermine students' educational success in developing and/or collectivist cultures. Therefore, it is recommended that students' extrinsic goals may not be condemned by the teachers, parents, and society. There is a need for more research into intrinsic and extrinsic life goals in various cultural and socioeconomic contexts.</p> <p>© 2023 The Authors, Published by WUM. This is an Open Access Article under the Creative Common Attribution Non Commercial 4.0</p>

1. Introduction

The Self-determination theory (Deci & Ryan, 2000) is a well-known goal content theory. Goal content is divided into intrinsic and extrinsic goals in this paradigm. Financial success, image, and popularity are extrinsic aspirations, but self-acceptance, affiliation, and community feeling are

intrinsic ones (Kasser & Ryan, 1996). Intrinsic goals help people function well because they allow them to experience independence, productivity, and healthy connections (Kasser & Ryan, 1996). Secondly, the pursuit of these goals is governed entirely by internal factors (Abeyta et al., 2017); whereas extrinsic goals promote materialism and hence, contribute to malfunctioning (Dittmar & Isham, 2022). Extrinsically oriented people seek praise and frequently participate in interpersonal contests (Abeyta, et al., 2017).

Life goals have been well researched in the well-being realm, and the exploration of academic variables is comparatively new. Research concludes that intrinsic goals are good for well-being and extrinsic goals are harmful in industrialized countries with an individualistic attitude, whereas both intrinsic and extrinsic goals are contributing factors to wellness in developing nations (Nishimura & Suzuki, 2016). This disparity in the outcomes of extrinsic goals in developing and developed countries has piqued scholars' interest in learning more about the function of life goals in various civilizations and situations. Consequently, the study of these goals has begun in the world of education (Zhoc et al., 2019) suggesting that extrinsic goals may have negative short- and long-term effects on educational success. This research is critical since education has become an important area of functioning (Wijnen et al., 2017). This is also a reason for concern because of students' overall below-average results and achievement, and their lack of tenacity at the university level (Kryshko et al., 2020; Ali & Jabeen 2015). As a result, the purpose of this research was to look at the life goals of university students in a Pakistani context. We were particularly interested in their goal orientation and the relationship between their goals, critical thinking, and academic achievement.

2. Literature Review

Researchers have explored life goals with well-being variables extensively but the exploration with academic variables has started recently. With wellbeing indices, intrinsic goals were positively associated with Polish, Korean, American, and German samples (Kim et al., 2003; Schmuck et al., 2000; Zawadzka et al., 2015). In American and Canadian groups, not only intrinsic goals were favorably connected to well-being but also adversely related to ill-being (Martela et al., 2019; Sheldon et al., 2019). Intrinsic goals were also found to have a positive relationship with life satisfaction and a negative relationship with anxiety and depression in the latest experimental and survey studies conducted in the US, UK, and Hungary (Toth-Bos et al., 2020). In a Japanese sample, they were linked to life satisfaction (Nishimura & Suzuki, 2016). These goals were also linked to spiritual beliefs among New Zealand immigrant parents (Zhang, 2020). These findings have also been supported by longitudinal research in China, where intrinsic goals prevented the onset and maintenance of depressive disorders in undergraduate students in the face of social and academic difficulties (Ling et al., 2016). However, scientific research on the relevance of extrinsic goals in wellbeing is inconclusive. Researchers are of the view that extrinsic goals link to poorer personal, social, and environmental wellbeing across the lifespan (Dittmar & Isham, 2022). Specifically, studies in wealthier regions, such as Japan, Germany, and Spain, have shown that extrinsic goals are linked with lower well-being (Nishimura & Suzuki, 2016; Romero et al., 2012; Schmuck et al., 2000). Also, they linked to indices of distress in American participants (Niemic et al., 2009). In addition, longitudinal research in such countries found that people's well-being improves as they lay less emphasis on extrinsic goals (Kasser et al., 2014). A meta-analysis also revealed that people who prioritized extrinsic goals over intrinsic ones were less contented with their lives and more worried and sadder (Dittmar et al., 2014). Extrinsic goals, on the other hand, have been found to have a positive or no link with well-being in developing countries. Extrinsic goals, for example, were found to be associated with high self-esteem, happiness, and wellbeing in participants from China, Hungary, Russia, Iran, and Croatia (Lekes et al., 2010; Martos & Kopp, 2012; Rijavec et al., 2011; Ryan et al., 1999; Sabzehara et al., 2014). Participants were divided into four groups by Rijavec and his colleagues (2011) based on their life goals. The group with the highest scores on both goals also got the best scores on well-being indicators, according to the findings. However, no relationships

between these goals and well-being were reported in a Romanian (Frost & Frost, 2000) or a Spanish sample (Romero et al., 2012). Researchers in Pakistan have observed the effects of life goals on business graduates' inclinations. Their business ambitions were positively influenced by both intrinsic and extrinsic goals, as expected (Arshad et al., 2019).

In the academic realm, recent research with Hong Kong teenagers found that intrinsic goals were favorably connected with student achievement, but extrinsic goals of popularity and money showed negative and no associations with academic achievement, respectively (Zhoc et al., 2019). Similarly, intrinsic goals were connected to fewer exam failures among Romanian undergraduate students (Eniko & Stefan, 2016) and extrinsic goals were associated to lower exam results in youngsters in the United States, the United Kingdom, China, and the Philippines (King & Datu, 2017; Ku et al., 2014). Other scholars have explored the relationship between student achievement and the life goal of material possession acquisition (an extrinsic goal). This research has been limited to high school and college students. As an example, Ku et al. (2012, 2014) looked at whether there was a link between the extrinsic goal of accumulating material items and exam results in British and Chinese school children. The goal of gaining material items was associated with lower achievement among all children, according to the findings (Ku et al., 2014). Furthermore, for the Chinese, the goal was linked to lower exam grades after a year also (Ku et al., 2012, 2014). There was a negative relationship between the extrinsic goal of acquiring money and academic achievement among American adolescents too (Froh et al., 2011; Goldberg et al., 2003). Likewise, longitudinal studies in the Philippines among teens found that a focus on gaining money was linked to lower achievement and study interest (King & Datu, 2017). Experiments examining the impact of learning activities presented as intrinsic and extrinsic goals on learning outcomes have yielded comparable results. Intrinsically directed learning activities improved conceptual learning, achievement, and perseverance among school, college, and university students in Norway and Belgium, but extrinsically oriented learning activities had the opposite effect (Jeno et al., 2020).

2.1 Research Hypotheses

H1: Students' intrinsic life goals will be higher than their extrinsic life goals.

H2: Students' intrinsic life goals will positively predict, and extrinsic goals will negatively predict their achievement.

H3: Students' intrinsic goals will positively predict, and extrinsic life goals will negatively predict their critical thinking.

3. Data and Methodology

3.1 Study Design and Data

The study had a quantitative correlational survey design in which the life goals and educational success variables were studied. The study sample was undergraduate students from the largest public university in Karachi. Participants were approached on the university premises and a convenient sampling method was utilized. The sample consisted of 193 participants, of which 57 were men and 136 were women, aged between 18-31 years ($M=20.80$, $SD=2.170$). Participants from the first to the fourth year of study from different departments of the university.

3.2 Measurement

3.2.1 Demographic Form

Information about demographics was obtained through a self-developed form. Questions about age, gender, the university year participants were enrolled in, and the department of study were asked.

3.2.2. Aspiration Index

Participants' intrinsic goals (self-acceptance, affiliation, community feeling) and extrinsic goals (financial success, image, popularity) were explored through twelve items of the 47-item Aspiration

Index (Grouzet et al., 2005) on a 9-point scale (1= not at all to 9= extremely). The scale's mean and median alpha reliabilities range from .62 to .90 and the twelve items we utilized have been found to have the highest factor loadings in different samples (Grouzet et al., 2005).

3.2.3 Critical Thinking Scale

Five-item critical thinking subscale of the Motivated Strategies for Learning Questionnaire (Pintrich et al., 1993) was used to measure participant's critical thinking. Items are scored on a seven-point scale, where 1 indicates no correspondence to 7 indicates high correspondence. It has good predictive validity and internal consistency of .80 (Duncan & Mckeachie, 2015).

3.2.4 Subjective Academic Performance Scale

Student achievement was measured by 11-point (0 indicating strong disagreement to 10 indicating strong agreement) Subjective Academic Performance Scale (Leung & Xu, 2013). It consists of a direct item: "My academic results are very good". The content and construct validity have been established (Leung & Xu, 2013). For our study, it was used instead of grades because the participants were enrolled in different majors and belonged to different years of university education. In this situation, subject- and level-nonspecific measures should be used to measure achievement (Etzel & Nagy, 2015).

Table 1: Demographic Characteristics of Participants

Characteristic	<i>N</i>	Range	<i>M</i>	<i>SD</i>
Age (years)	193	18-31	20.80	2.170
SES (monthly family income in PKR/number of family members)	164	1333.333-21428.571	8056.240	4370.347
Characteristic	<i>N</i>	%		
Gender				
Men	57	29.5		
Women	136	70.5		
Year of Study				
First	47	24.4		
Second	56	29		
Third	44	22.8		
Fourth	46	23.8		
Faculty				
Education	17	8.8		
Islamic Studies	18	9.3		
Management Sciences	8	4.1		
Pharmacy	5	2.6		
Science	52	26.9		
Social Sciences	81	42		
Institutes/Centers	12	6.2		
Marital Status				
Single	188	97.4		
Married	4	2.1		
Divorced	1	.5		

3.2.5 Procedure

Permission was taken from the research board of the university where the study was conducted. The sample participants were 193 undergraduate students from the largest public sector university located in Karachi, selected through convenient sampling. Participants studying in the undergraduate programs in the first to the fourth year of study in different faculties were approached in person on university premises. First, they were asked for written consent. Voluntary participation was ensured. After consent, they filled out the demographic form and scales. Confidentiality of the responses was ensured.

3.2.6 Statistical Analysis

Data were analyzed by SPSS v.22. Demographics, differences between goals, and relationships of goals with academic outcomes were calculated by respective tests. The result of the analysis with its interpretation is presented below.

4 Results and Discussion

4.1 Sample Information

Table 1 shows the demographics of the study sample. The sample comprised of 57 male and 136 female participants aged 18-31 years (Mean age = 20.80 years). They belonged to the faculty of Social Sciences (42%), Science (27%), Management (4.1%), Education (8.8%), Islamic studies (9.3%), Pharmacy (2.6%) and Research institutes (6.2%). The sample represented all the four years of graduate study; 22.4% students belonged to first year, 29% to second year, 22.8% to third year, and 23.8% to final year. The marital status of 97.4% participants was single. Noticeably, 15% of the participants did not disclose their data related to financial status. For the remaining 85% participants, the mean family income per family member was 8056.240 PKR.

4.2 Reliability Analysis

Table 2 gives Cronbach's alpha values of the intrinsic and extrinsic life goals and critical thinking scales. The variables have values greater than 0.7 which show that the measures are significant and reliable. The intrinsic goals scale's Cronbach's alpha value is also acceptable as number of items were small (Tavakol et al., 2011).

Table 2: Cronbach's Alpha Reliability Coefficients

Scale	Cronbach's alpha	No. of items
1. Intrinsic goals	.590	6
2. Extrinsic goals	.717	6
3. Critical thinking	.764	5

4.3 T-Test Analysis

Table 3 shows the paired t-test results. There were significant differences in participants' intrinsic and extrinsic goals ($t = 6.832, p < .001$). Participants had higher intrinsic goals than extrinsic goals, indicating that they were more intrinsically oriented than extrinsically oriented. The finding that participants' intrinsic goals outweighed their extrinsic goals is supported by the findings of a study conducted with university students in Germany and the United States (Schmuck et al., 2000). The participants in this study, both German and American, exhibited higher intrinsic goals than extrinsic ones. In addition, according to a recent Turkish study, university students' intrinsic goals were greater than their extrinsic goals (Korkmaz & Kirdök, 2022). Polish university students have also demonstrated the same goal orientation (Siwek et al., 2017).

Table 3: Difference between Intrinsic and Extrinsic Goals of the Sample (N=193)

	M	SD	t (192)	P	LL	UL
Intrinsic goals	5.983	1.336	6.832	.000	.497	.900
Extrinsic goals	5.284	1.529				

4.4 Regression Analysis

Table 4 shows the relationship between intrinsic and extrinsic goals, student achievement, and critical thinking, explored by the Pearson moment correlation coefficient. Intrinsic goals had a significant correlation with critical thinking, and extrinsic goals had a significant correlation with both critical thinking and student achievement.

Table 4: Pearson Product Moment Correlation of Life Goals, Student Achievement, and Critical Thinking

	1	2	3	4
1. Intrinsic Goals	--	.515**	.416**	.140
2. Extrinsic Goals		--	.306**	.279**
3. Critical Thinking			--	.365**
4. Student Achievement				--

p** < 0.01, p* < 0.05

Multiple linear regression was applied with student achievement as the dependent variable and intrinsic and extrinsic goals as independent variables. Table 5 shows that intrinsic goals did not significantly predict student achievement, but extrinsic goals significantly predicted student achievement ($\beta=.282$, $t=3.472$, $p<.01$). Similar results were found with university students in Romania, where participants' intrinsic goals were not associated with their achievement (Eniko & Stefan, 2016). This may be because intrinsic goals may encourage students to focus on personally engaging material and not on marks (Ranellucci et al., 2017). When students focus on mastering the topic information, they become less concerned about grades (Ranellucci et al., 2017). It's also worth noting that good academic results have become increasingly vital for establishing a good career (Ku et al., 2014), which is an extrinsic goal. As a result, student achievement and results may be more aligned with extrinsic goals and not with intrinsic goals (Bipp & van Dam, 2014; Mouratidis et al., 2018). Students also consider getting good grades to be an extrinsic goal (Lynam et al., 2022). Noticeably, these goals were not negatively linked to students' educational success, as suggested in the Self-determination theory. It should be noted that the current research was carried out with students in Pakistan, which is a collectivist, developing, and predominantly Islamic region. In collectivist societies, students may try harder to achieve well to receive social acceptance and to portray a nice image in front of others, which is an extrinsic goal. Also, in a developing economy, completing a degree may be a financial strain for them. Financial burdens create feelings of insecurity (Brdar et al., 2009) and extrinsic goals are thought to be used to combat such feelings (Kasser et al., 2004; Tanaka & Yamauchi, 2000). Islam also does not ban the Extrinsic goals of money and spending money on others and practicing charity are valued (Adnan & Buniamin, 2014). In Malaysia also, university students' extrinsic goals were positively related to educational success, measured in terms of metacognition and management skills (Adnan & Buniamin, 2014).

Table 5: Predictors of Student Achievement

Variables	B	SE	B	T	p
Constant	4.547	.719		6.321	.000
Intrinsic Goals	-.099	.131	-.006	-.068	.946
Extrinsic Goals	.399	.115	.282	3.472	.001

R²= .078, F(2, 190)= 8.044, p<.001, Unstandardized Coefficient = B, Standardized Coefficient = β , Dependent Variable = Student Achievement, Predictors: (Constant), Intrinsic Goals, Extrinsic Goals.

Multiple linear regression was applied with critical thinking as the dependent variable and intrinsic and extrinsic goals as independent variables. Table 6 suggests that intrinsic goals significantly predicted critical thinking (β =.352, t= 4.602, p<.01) while extrinsic goals did not significantly predict critical thinking. Similar results were found with university students in Romania. The participants' intrinsic goals were favorably associated with their course load (Eniko & Stefan, 2016). Intrinsic goals may drive students to gain skills and focus on improvement, but extrinsic goals may not do it.

Table 6: Predictors of Critical Thinking

Variables	B	SE	β	T	p
Constant	2.404	.372		6.461	.000
Intrinsic Goals	.313	.068	.352	4.602	.000
Extrinsic Goals	.097	.059	.125	1.635	.104

R²= .185, F(2, 190)= 21.506, p<.001, Unstandardized Coefficient = B, Standardized Coefficient = β , Dependent Variable = Critical Thinking, Predictors: (Constant), Intrinsic Goals, Extrinsic Goals.

5. Conclusion, Implications, and Recommendations

5.1 Conclusion

The current study investigated the intrinsic and extrinsic life goals of university students. It also explored the link of these goals with students' educational success. Extrinsic goals were likewise positively associated with student achievement, as were the intrinsic goals with critical thinking. Extrinsic goals may not have the same harmful impact on academics in collectivist and emerging cultures as they do in individualist and developed societies, according to the findings of this study.

5.2 Implications, and Recommendations

Since there was no evidence of a detrimental link of extrinsic goals with educational success in our sample, it is recommended that students' extrinsic goals not be condemned by the teachers, parents, and society. Our findings not only back up studies undertaken in developing and/or collectivist cultures but also highlight the need for more research into intrinsic and extrinsic life goals in various cultural and socioeconomic contexts. In longitudinal investigations, the basic mechanism of extrinsic goals' favorable influence on academics should be investigated. Qualitative research, specifically multiple grounded theory, would aid in gaining a deeper understanding.

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