



Análisis de las asociaciones entre la curiosidad y la tendencia de aprendizaje permanente de los estudiantes universitarios

Analysis of the associations between curiosity and the lifelong learning tendency of university students

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Abstract

The present study aimed to investigate the associations between curiosity and lifelong learning tendency of serious and casual leisure participant university students. The study was designed as a cross sectional study and 799 students from Gazi University participated in the study. To collect data, the “Curiosity II”, “Life Long Learning Tendency” and the “Serious and Casual Leisure Participant” scales were used. The data were analyzed with SPSS for Windows 23. In data analyze, Independent Samples t Test, and Pearson correlations were used. The mediation effect of being serious or casual leisure participant on the correlation between curiosity and lifelong learning tendency, Process 3.1 for SPSS was used. As results this study showed that curiosity and lifelong learning positively correlated each other. Besides, being a serious leisure participant partially mediated the correlation between the variables.

Keywords: Leisure, curiosity, lifelong learning, education, recreation, university students

Resumen

El presente estudio tuvo como objetivo investigar las asociaciones entre la curiosidad y la tendencia de aprendizaje a lo largo de la vida de estudiantes universitarios participantes en el ocio serio y casual. El trabajo fue diseñado como un estudio transversal y 799 estudiantes de la Universidad de Gazi participaron en el estudio. Para la recogida de datos se utilizaron las escalas “Curiosidad II”, “Tendencia de aprendizaje permanente” y “Participante de ocio serio y casual”. Los datos se analizaron con SPSS para Windows 23. En el análisis de datos se utilizó la prueba t de muestras independientes y las correlaciones de Pearson. Se utilizó el efecto de mediación de ser un participante de ocio serio o casual sobre la correlación entre la curiosidad y la tendencia de aprendizaje permanente, Proceso 3.1 para SPSS. Como resultado, este estudio

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mostró que la curiosidad y el aprendizaje permanente se correlacionan positivamente entre sí. Además, ser un participante serio del ocio medió parcialmente la correlación entre las variables.

Palabras clave: Ocio, curiosidad, aprendizaje permanente, educación, recreación, estudiantes universitarios.

Introduction

There is no doubt that the perception of leisure is different today than it was in the past. Considering historical development, it is remarkable that the perception of leisure has changed and even deformed from time to time. According to Ekinçi et al. (2020), to explain this situation with an example, the transition phase from Ancient Greek civilization to Late Middle period civilization can be said (Aytaç, 2005). In the Ancient Greek, leisure was perceived as reflecting on the superior values of the world such as goodness, beauty, truth and knowledge, and leisure was not a time of laziness. Rather, it was a time to create exclusivity, contemplation, aesthetic pleasures and taste (Russell, 2017). However, in the late middle civilization, leisure began to transform into vanity, luxury, pleasure and waste, and the use of this time became a sign of nobility, and a source of artificial wealth, dignity and power (Aytaç, 2005). With the spread of capitalism, the concept of work came to the fore, and leisure was seen as worthless (Roberts, 2006; Russell, 2017). During the period of capitalism's hegemony until the 21st century, leisure was a time needed both to reproduce work and to consume increased production (Aytaç, 2017).

Researchers indicated that there is a reciprocal link between lifelong learning and serious leisure perspective (Jones & Simon, 2001; Stebbins, 2018). Serious leisure activities can be used to transform those at the lower levels of the socio-economic spectrum where leisure experiences are absent, and lifelong learning has the potential to be instrumental in the development of serious leisure activities. Serious leisure activities require a considerable effort to develop knowledge, skills and abilities as well as coping with difficulties, obstacles or a number of problems (Stebbins, 2017).

There are many explanations of curiosity in the literature (Liquin & Lombrozo, 2020; Wagstaff et al., 2020). However, we can say that the systematic studies about curiosity started after Berlyne's pioneering works in the 1950s. In his studies, Berlyne tried to explain curiosity with theories such as "drive reduction". According to him, curiosity is a necessity that needs to be fulfilled like hunger (Berlyne, 1960). However, as the literature developed the concept of curiosity changed, and researchers conceptualized curiosity as "desire for new knowledge or experience" (Loewenstein, 1994). Therefore, they have examined curiosity in a

multidimensional way. For example, while Collins, Litman, and Spielberger (2004) examined curiosity as perceptual curiosity, Litman and Spielberger (2003) examined it as epistemic curiosity. Besides, there are studies which examine curiosity as physical, social and intellectual curiosity (Reio et al., 2006).

According to UNESCO (1976), lifelong learning is “the main center of educational processes, designed as part of or replacing education in universities, high schools and schools, including formal or informal apprenticeship training, regardless of the subject, stage and methods” (p. 2). European Commission (2000) defined lifelong learning as all purposeful learning activity undertaken throughout life with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment related perspective. So, this study aimed to analyze serious and casual leisure participant university students’ curiosity and lifelong learning tendencies.

Methodology

Study design

The study was designed as a cross sectional quantitative study. Cross sectional study design is one of the most used study patterns in sport and leisure related studies (Gratton & Jones, 2010). It includes collecting data to determine the specific characteristics of a group (Büyüköztürk, et al., 2008), making inferences from the obtained data and then predicting them to general population (Gratton & Jones, 2010).

Study sample

The study sample consisted of 814 university students from various faculties of Gazi University. However, as a result of incorrectly filled data collection tools and outliers’ analysis, the data of 15 participants were extracted from the research and the study sample was reduced to 799 participants. Participants took part in the research voluntarily and were selected according to the random sampling method. The distribution of the general characteristics of the participants is given in Table 1.

Table 1
Distribution of the Demographic Characteristics of Participants

Variable	Category	N	%
Age	19 & <	80	10.01
	20	179	22.40
	21	262	32.79
	22	123	15.39
	23 & >	155	19.40
	Total	799	100.00
Gender	Female	445	55.69
	Male	354	44.31
	Total	799	100.00
Faculty	Faculty of Education	146	18.27
	Faculty of Dentistry	132	16.52
	Faculty of Pharmacy	147	18.40
	Faculty of Technology	78	9.76
	Faculty of Literature	33	4.13
	Faculty of Sports Science	263	32.92
	Total	799	100.00

Data collection tools

Serious and casual leisure inventory and measurement (SLIM)

In the study, the “Serious and Casual Leisure Inventory” was used to determine whether the participants were serious or casual leisure participants (Akyıldız, 2013). The inventory is a self-report measure with 9 factors and 42 items anchored with a 5 Likert type scale from 1 “completely disagree” to 5 “completely agree”. High scores indicate that the responder is a serious leisure participant, and low scores mean the responder is a casual leisure participant. Sample items include “I feel more knowledgeable in the leisure activity I chose” (leisure carrier), “Participating in this leisure activity requires a certain level of skill” (self-efficacy), “I make new friends who are interested in this leisure activity” (psycho / social benefit), “Thanks to this leisure activity, I am getting away from stress” (therapeutic benefit), “I have common thoughts with people who are interested in this leisure activity” (social benefit), “Anyone who knows me knows that this leisure activity is one of the things that make me who I am” (devotion), “I think this leisure activity matches my personality” (personality), “I persistently deal with the difficulties of the leisure activity” (self-determination), “I work hard to improve myself regarding this leisure activity” (personal effort).

Lifelong learning tendencies scale

In the study, “Lifelong Learning Tendencies Scale” developed by Gür-Erdoğan and Arsal (2016) was used to determine the lifelong learning tendencies of the participants. The scale is a self-report measure with 2 factors and 17 items. The answers given to the scale are evaluated on a 5-point Likert-type rating scale such as 1- strongly disagree, 5- strongly agree. Sample items include “I enjoy learning new things” (willingness to learn), “I believe in the necessity of using different learning strategies” (openness to development).

Curiosity and exploration inventory-II

In the study in order to examine the trait curiosity of the participants’ “Curiosity and Exploration Inventory-II” was used. The scale was originally developed by Kashdan et al. (2009), and adapted into Turkish by Acun et al. (2013). The scale is a self-report measure with 2 factors and 10 items anchored with a 5-point Likert-type rating scale from 1- strongly disagree, to 5- strongly agree. Sample items include “I actively seek as much information as I can in new situations” (stretching), and “I am the type of person who really enjoys the uncertainty of daily life” (embracing).

Table 2

Internal consistency coefficients of data collection tools

	N of items	Alpha
<i>Curiosity</i>		
Stretching	6	.79
Embracing	4	.67
<i>Lifelong learning</i>		
willingness to learn	11	.84
openness to development	6	.81
<i>Serious leisure inventory</i>		
leisure carrier	6	.82
self-efficacy	5	.81
psycho / social benefit	6	.85
therapeutic benefit	5	.84
social benefit	4	.82
Devotion	4	.83
Personality	4	.81
self-determination	4	.78
personal effort	4	.75

According to analyzed Cronbach’s Alpha results, internal consistency coefficients of the scale factors are adequate (George & Mellory, 2003) and ranges between .67 (embracing) to .85 (psycho / social benefit).

Table 3*Fit indicates of the scales*

Fit index value	Perfect	Acceptable	Curiosity and Exploration Inventory-II	Lifelong Learning Tendencies Scale	Serious and Casual Leisure Inventory
X ² /df	≤ 3	4-5	4.51	4.29	4.71
RMSEA	≤ .05	.05 -. 10	.07	.07	.07
CFI	≥ .95	≥ .90	.96	.97	.96
NNFI	≥ .95	≥ .90	.94	.97	.96
NFI	≥ .95	≥ .90	.95	.96	.95
IFI	≥ .95	≥ .90	.96	.97	.96
RFI	≥ .95	≥ .90	.93	.95	.95
GFI	≥ .90	≥ .80	.96	.93	.82
AGFI	≥ .90	≥ .80	.93	.91	.80

According to analyzed results, fit index values of the scales ranges between perfect fit indicates to acceptable fit indicates (Hooper, Coughlan, & Mullen, 2008; Meydan & Şeşen, 2011; Seğer, 2015).

Data collection procedure

To collect data, first university scientific ethical approval was obtained. Then, the relevant faculties were visited by the researcher to make an appointment, and the data were collected at the appointment day using face to face method. Participation in the research took place on a voluntary basis and an informed consent form was obtained from the participants.

Data analysis

The data were evaluated with SPSS 23 for Windows. The distribution of personal information of the participants was determined by percentage and frequency. Missing data and outliers analyze were made on the data, and the missing data at most up to two values were completed with mean values (Meyers, Gamst, & Guarimo, 2006; Tabachnick & Fidell, 2007). In the outliers' analysis, the z scores of the data were calculated, and 15 data outside the range of -3, +3 were excluded from the study (Çokluk et al., 2012). Internal consistency coefficients and fit index values were calculated for data collection tools. Normality assumptions were checked with skewness and kurtosis values. The status of the participants to be serious or casual leisure participants was determined by the non-hierarchical cluster analysis method (Sala &

Bragulat, 2004). Independent Samples t Test and Pearson Correlation analysis were used in the analysis of the associations between the variables. The mediating effect of being serious or casual participant on subjects' curiosity and lifelong learning tendency, Process 3.1 for SPSS was used (Hayes, 2017). Model No.4 provided in this software, which is deemed to be appropriate for our research aim, was used (Preacher & Hayes, 2008).

Results

Present study aimed to investigate the associations between curiosity and lifelong learning tendency of serious and casual leisure participant university students. In this section of the study, results of the analyzed data are presented.

Table 4

Distribution of the participants as serious or casual leisure participants

	N	%
Serious Leisure Participants	488	61.07
Casual Leisure Participants	311	38.93

Participants being serious or casual leisure participant, was evaluated with “Serious and Casual Leisure Inventory” using non-hierarchical cluster analysis. According to analyzed results, 61.09% (N = 488) of the participants in the study were serious leisure participants, while 38.93% (N = 311) were casual leisure participants.

Table 5

Descriptive statistics and comparison between serious and casual leisure participants

	Serious Leisure Participants (N=488)		Casual Leisure Participants (N=311)		P
	Mean	SD	Mean	SD	
willingness to learn	4.10	0.49	3.63	0.54	.000
openness to development	4.26	0.54	3.79	0.61	.000
stretching	3.93	0.54	3.28	0.61	.000
embracing	3.40	0.83	2.95	0.71	.000

The descriptive statistics are given in Table 5. Regarding group comparison, we found that serious leisure participants reported significantly higher scores on willingness to learn ($t_{.05}=12.425$; $p<.001$), openness to development ($t_{.05}=11.229$; $p<.001$), stretching ($t_{.05}=15.399$; $p<.001$), and embracing ($t_{.05}=8.128$; $p<.001$).

Table 6
Correlations between the variables

	1	2	3	4
1. willingness to learn	1	---	.487**	.104*
2. openness to development	---	1	.412**	.074
3. stretching	.440**	.390**	1	---
4. embracing	.063	.018	---	1

Notes: Correlations under the diagonal are for Casual Leisure Participants (N=311), the ones above the diagonal are for Serious Leisure Participants (N=488). *p< .05; ** p< .01

Results showed that lifelong learning tendency and curiosity were positively correlated for the serious leisure participants ranging from .104 (willingness to learn and embracing) to .412 (openness to development and stretching). On the other hand, no significant correlation was found between openness to development and embracing for the serious leisure participants. Pearson correlation results also showed that lifelong learning tendency and curiosity were positively correlated for the casual leisure participants ranging from .390 (openness to development and stretching) to .440 (willingness to learn and stretching). On the other hand, no significant correlations were found between willingness to learn, openness to development and embracing for casual leisure participants.

Table 7
The mediating effect of serious leisure score in the correlation between curiosity and lifelong learning

			B	S. Error	t	p
Curiosity	C ₁	Lifelong learning	.4031	.027	14.931	.000
Curiosity	A	SLIM	.4351	.025	17.136	.000
SLIM	B	Lifelong learning	.4748	.033	14.082	.000
Curiosity	C ₁ '	Lifelong learning	.1965	.028	-6.949	.000

To investigate mediating effect of being serious or casual leisure participant (SLIM Score) on the relationship between curiosity and lifelong learning tendency, a simple mediation analysis was performed with PROCESS using Baron and Kenny method (Pardo & Román, 2013). According to the results of the analysis, it was determined that curiosity positively affected lifelong learning (C₁) without any mediating effect ($\beta = .4051$; $p < .05$). When SLIM score was included in the model as a mediator (C₁'), the significant effect of curiosity on lifelong learning tendency continued, however its impact decreased ($\beta = .1965$; $p < .05$). This shows that the SLIM score, which was determined as a mediator variable in the study, has a

mediating effect on the relationship between curiosity and lifelong learning tendency. This study further examined the mediating role of SLIM score in the relationship between curiosity and lifelong learning with bootstrap confidence interval test (Preacher & Hayes, 2008). The bootstrap method gives a confidence interval for indirect effects by repeating thousands of random resampling (Hayes & Rockwood, 2017). The total effect of curiosity on lifelong learning is 0.2396. The direct effect of curiosity on lifelong learning is 0.3840. The indirect effect of curiosity influencing the coefficient of lifelong learning through SLIM score is 0.2066 (0.1925×0.2912). The above evidence indicates the serious leisure inventory score has a partial mediating effect in the model.

Discussion

In this part of the study, which was conducted to investigate the curiosity and lifelong learning tendencies of university students who are serious and casual leisure participants, a general evaluation of the research results was made and the research findings were supported with the relevant literature. Analyze results revealed that 61.07% of the students in the study were serious leisure participants, while 38.93% were casual leisure participants. According to Stebbins (2018), in general, although casual leisure participants are more than serious leisure participants, in the literature researchers mostly worked on serious leisure participants. The present research differs from the studies in the literature in that it includes both serious and casual leisure participants. However, we see studies conducted with both serious and casual leisure participants as well. For instance, in his study, Işık (2014), examined the situation of 966 university students being serious and casual leisure participants and stated that the majority of the students considered themselves as serious leisure participants. In their study, Yavuz, Akyildiz and Munusturlar (2020) also found 55.1% of the participants as serious leisure participants. When viewed from this perspective, the results of aforementioned studies are similar.

When the research findings were examined, both curiosity and lifelong learning tendencies of serious leisure participants were found to be higher than casual leisure participants. In their study, Cohen-Gewerc and Stebbins (2013) highlighted the characteristics of serious and casual leisure participants and examined their relationship with personality. They also discussed in what ways and how serious leisure participation affects individuals' personality development. According to Sivan, et al. (2019), serious leisure participation requires from participants to direct their skills, knowledge and interests to the chosen activity for a long period. This situation can sometimes last for many years and is therefore related to

the personality of the individuals. On the other hand, casual leisure activities require no training and casual leisure includes activities such as watching television, relaxing or leisure reading (Mansourian, 2020). The serious leisure participant is connected with the activity at a level that can change his life, his plans and life fiction (Işık et al., 2020). In a study conducted on serious leisure participant long-distance runners it was found that the participants see the running as a part of their lives, and running had a huge impact on the happiness of believing that it was an easy way to set a goal and see what they have accomplished (Doğusan & Koçak, 2019). We think that this can only happen with a high level of trait curiosity and lifelong learning tendency. Individuals with a depth curiosity are expected to prefer serious leisure activities, while individuals with a shallow curiosity are expected to prefer casual leisure activities, as curiosity encourages proactive and deliberate behaviors in response to activities involving stimuli such as novelty and complexity, as can be seen in Kashdan et al. (2004). As a result, it can be said that this result of the present study is compatible with the serious leisure perspective.

For the other hand, and according to analyzed results, significant positive correlations were found between curiosity and lifelong learning tendencies for both serious and casual leisure participants. In their study which examined the factors affecting lifelong learning, Günüş et al. (2012) stated that stretching is among the characteristic features of lifelong learning. Akkuş (2008), on the other hand, defined lifelong learning as a process that develops and continues to develop the competencies and potential of the individual throughout his life, and stated that it helps the individual to keep their curiosity and interests alive and therefore makes them willing to seek new information (Isik, 2018). As a result of serious leisure participation a gradual progress is made in the selected activity, and a positive development can be observed. Besides, continuous benefits such as self-realization and social relationships are provided at the end of participation. Serious leisure activities require the participant to be passionately committed to the event (Stebbins, 2017). Therefore, the preference of such activities is related with the curiosity of the individuals. With this perspective, Çetiner and Yayla (2021), examined the effect of activity commitment on life satisfaction and quality of life of cyclists and found that emotional, functional, and recommended commitment dimensions concerning the activity have a positive effect on post-activity life satisfaction.

According to Stebbins (2016) the image of serious leisure in the 21st century is favorable in issues such as disability and therapeutic recreation, neurological rehabilitation, and lifelong learning. The research findings also showed that being a serious or casual leisure participant had a partial mediating effect between the participants' curiosity and lifelong learning tendencies. In other words, the relationship between curiosity and lifelong learning tendency

increases in the case of being a serious leisure participant, however the existing relationship decreases in case of being a casual leisure participant. Previous studies showed that curiosity is strongly needed in education environment as drives students to engage in learning and intellectual activities (Jirout et al., 2018), and serious leisure provides a structured approach to learning, providing categories of experience (Jones & Symmon, 2001). So, we think that being a serious leisure participant positively affects the curiosity and lifelong learning tendencies of the participants as a natural result of the unique characteristics of the three variables examined.

Limitations

Although, present study showed new information on variations in curiosity and lifelong learning tendency of serious and casual leisure participant university students, has some limitations. First, the measurement tools were self-report measures, and research was designed as a cross-sectional study. They, therefore, do not reflect developmental changes. The second limitation was related to the fact that the participants were university students, since the university stage involved the process of learning and adapting lifestyles for the transition period from adolescence to adulthood. So, future research may be designed with a different type of study design, instrumentation and sampling.

Conclusion

It is thought that the results of the research will contribute to directing students to serious leisure activities that they are curious about, making their education life more productive, increasing their qualifications throughout their lives, and bringing new perspectives to these qualities.

Also, as results this study showed that curiosity and lifelong learning positively correlated each other. Besides, being a serious leisure participant partially mediated the correlation between the variables.

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