The role of extra-curricular activities in increasing student engagement

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Abstract

Purpose – The first objective of this study is to review the mechanism of conducting extra-curricular activities (ECAs) in the open and distance learning (ODL) setting. To achieve this objective, the procedure of ECAs at the Virtual University of Pakistan has been studied. The second objective of this study is to find the impact of ECAs on student engagement.

Design/methodology/approach – This is a cross-sectional quantitative study. The questionnaire has been used to collect the data. The purposive sampling technique has been used, while this study’s sample size is 970. An independent sample t-test has been used to find the difference between the groups.

Findings – This study shows a significant difference between the engagement levels of students who have been part of any ECA at university compared to the students who never participated in any ECA.

Research limitations/implications – The results have been derived from the data gathered from one university only that might hinder the generalizability of the findings. The same study can be conducted in other ODL institutions to authenticate the findings.

Practical implications – This study will help in realizing the policymakers of ODL about the importance of ECCAs. This study has also discussed an existing system of conducting ECCAs in an ODL setting that can be generalized and implemented across all the ODL universities to enhance student engagement.

Originality/value – This study has highlighted the importance of ECAs in ODL institutions that have been neglected since forever. This study is novel because it has highlighted the importance of social interaction of students in ODL and its relation with student engagement that has not been highlighted by any study so far.

Keywords Student engagement, ODL, Extra-curricular activities, Co-curricular activities

Paper type Research paper

Introduction

The emergence of knowledge economies has made everyone realize that individuals must focus on continuous education to thrive in the current competitive environment (Sharma, 2018). Open and distance learning (ODL) has been proved to be a viable source for making education accessible at minimum cost to all, removing the boundaries of gender, age, economic status or physical proximity (Bordoloi, 2018). ODL has been playing an essential role in disseminating education to the masses for many decades. But its existence has become inevitable during the last couple of years that have brought a revolutionary change in the perspective and policies of the education sector across the world due to coronavirus disease 2019 (COVID-19) (Almaiah et al., 2020). Although distance education in terms of policies, procedures and technologies has significantly emerged, few variables in the ODL chain are still missing or are in their infancy, “Student Affairs” is one of those variables (Dare et al., 2005). Among various student-related issues, the most ignored one is extra-curricular activities (ECAs) in ODL. Along with enhancing the physical and mental abilities...
of students, ECAs provide multiple benefits to the concerning educational institutions including, student retention (Flores-González, 2000), better employability skills in students (Lau et al., 2014), student motivation and student engagement (Gunuc and Kuzu, 2015). ODL institutions can also achieve the benefits offered by ECAs by making these a part of their academic calendar.

Few studies have highlighted the importance of ECAs in open distance education (Foley and Marr, 2019; Ruth, 2005). However, literature still lacks in providing a widely accepted mechanism of implementing ECAs in ODL institutions and explains the impact on non-traditional students. The role of ECAs is still unclear in the ODL institutions, and there is a strong need for a better understanding of the long-term impact of ECAs (Stuart et al., 2011).

The current research attempts to study the impact of participation in ECAs on student engagement in the ODL setting. This study highlights that an ODL institute like a conventional institute can balance academic knowledge, personal development and extracurricular engagement to provide a learning environment that facilitates students’ personal and professional grooming.

The objectives of this research are:

1. To study the mechanism of conducting ECAs at an ODL institute.
2. To find the impact of participation in ECAs on student engagement.

Literature review
ECAs are activities that students perform other than earning a degree during their education at a particular institute. Stuart et al. (2011) defined ECAs as “all activities beyond ‘the classroom’, such as involvement in university clubs and societies, paid and voluntary employment, family commitments, religious activity.” As the name suggests, these are separate from students’ primary curriculum to earn a degree. There is no second opinion about the importance of ECAs in a student’s life. Via ECAs, students’ employability or work skills can be enhanced (Tran, 2017). Many universities worldwide have already included ECAs in their strategies to improve students’ employability skills (Al-Ansari et al., 2016). ECAs allow students to work in natural settings, and according to Osman (2011), skills gained through practical learning have a more profound impact on students. They can build better collaborative working skills. In their study on business graduates, Lau et al. (2014) found that students who participate in ECAs rate their creativity, communication skills, leadership and self-promotion skills higher than their fellow students who do not participate in ECAs. Few studies highlighted that participation in certain ECAs could help students access large firms, secure jobs, avoid unemployment and increase academic achievements (Eide and Ronan, 2001). Academic achievement is the most compelling factor for the parents and the students as all students’ future endeavors depend on it. Stuart et al. (2011) linked high involvement in ECAs with higher marks in academics.

Kaufman and Gabler (2004) emphasized the importance of ECAs. They stated that institutions should allow their students to participate in ECAs to build their human, cultural and social capital. In a study on alumni of various UK-based universities, Stuart et al. (2011) found that alumni related their self-confidence, well-being and happiness with university’s social activities. They linked the social aspect of the ECAs with the networking that ultimately helped them secure a good job. Participation in various activities like sports, music, dance and community services increases students’ chances of admission to higher education institutions (HEIs). These activities increase students’ self-confidence and exposure (Kaufman and Gabler, 2004). Aoyagi et al. (2020) studied the factors that motivate students to participate in various ECAs. Among different factors, the prominent ones were the sense of responsibility and continuity, the spirit of challenge, and advancement.
Participation in such activities enhances the students’ skills and increases their motivation (Wallhead et al., 2014), and this increased motivation leads towards better academic results. These activities enhance certain skills or interests and improve affiliation with the institution.

Researchers have always focused on ECAs at the school or college level, while less work has been done on its role at the university level. The studies are scarce when we talk about the ECAs at online distance learning institutions. The academicians focus on developing learning objectives to ascertain a student’s knowledge from the course work. Still, they rarely give their students a conducive environment to groom or transform personally and professionally. It is easier for traditional institutions to arrange ECAs at their premises to engage their students. In an ODL setting, geographic dispersion and time constraints make it difficult for the institutions to arrange such activities (Fontaine and Cook, 2014). According to Tucker (2003), non-traditional students are less interested in ECAs as they balance their family, degree and work obligations. Holding this view for many years, ODL institutions have ignored the importance of ECAs. But now, the trend is changing; these days, we can find diversity in ODL in terms of students. Today, in ODL institutions, we can find a young 20-year-old student who is full time pursuing the bachelor’s degree or a 50-year-old who is doing the MPhil to progress in career, a housewife with children, or a young girl doing her diploma in psychology. Considering this diversity, researchers and academicians have realized that non-traditional students should also be provided with the chance of participation in ECAs as it provides them with the same depth of experiential learning as the campus-based students (Dare et al., 2005). These students are also part of the institutional community, and they should be provided with all the programs or activities offered to traditional campus-based students.

Participation in ECAs increases students’ affiliation with their institution, and the absence of such activities can cause a disconnection or weaken the identification with their alma mater (Ruth, 2005). The lack of interaction can cause the feeling of isolation in the ODL students. In previous literature on distance learning, the relationship between student success and a sense of connection with the institution is missing. Krauth and Carbajal (1999) found a strong relationship between the sense of connection and completion and satisfaction. This connection between institution and student can be enhanced with student services and ECAs. It can be the most effective way to employ the highest level of socialization, interest, sense of achievement and involvement in the participants, enhancing student engagement.

Student engagement has gained the academic researchers’ special attention as an essential source of decreasing boredom, dropout rates and increasing achievement levels (Fredricks, 2011). Student engagement plays a vital role in the academic and intellectual development of the student and improves student performance (Dassanayake and Senevirathne, 2018; Sun and Rueda, 2012).

Sense of engagement encourages students to actively participate in the classroom, ultimately leading to better academic and social outcomes (Siddiqi, 2018).

Gunuc and Kuzu (2015) defined engagement as “the quality and quantity of students’ psychological, cognitive, emotional and behavioral reactions to the learning process, as well as to in-class/out-of-class academic and social activities, to achieve successful learning outcomes” (p. 3). The construct of student engagement consists of three dimensions: emotional, behavioral and cognitive. Fredricks et al. (2004) conducted a comprehensive study on the concept of engagement and gave a detailed literature review of all the dimensions of engagement. They defined behavioral engagement as the student’s involvement in learning and academic tasks, school-related activities and positive conduct. Emotional engagement deals with a student’s feelings towards belongingness with the institution and the positive or negative reactions towards the institute and the activities.
In contrast, Fredricks et al. (2004) explained cognitive engagement as a student’s level of investment in learning and acquiring complex skills. Measuring student engagement is challenging in ODL settings than traditional face-to-face learning and should be measured differently (Henrie et al., 2015). Different factors can enhance student engagement like campus environment, association with peers or institutions, etc. For this study, authors have taken ECAs as a source of student engagement.

Various ODL institutions have started offering ECAs for their students. Fontaine and Cook (2014) studied the co-curricular activities’ strategy of a distance learning school of pharmacy and health professions. The school required students to get registered with any professional association to get their field’s real-time experience. This model is specified to the medical profession only. Moreover, they have not included ECAs in this model.

Dare et al. (2005) gave two perspectives concerning student services in distance education: (1) offering the same services to the distance learner and campus-based students, and (2) providing different services to both types of learners considering their specific needs. But in the researcher’s opinion, the low involvement of ODL students in ECAs as premised by previous researchers (Ndudzo, 2013) might result from not realizing the different needs of ODL students compared to campus-based students. The research on the connection between the ECAs and their impact on ODL students is still at its early stage. Although, researchers and professionals are aware of this gap, as can be derived from above mentioned literature, this study has tried to fill this gap by finding the relationship between the participation in ECAs and student engagement. Keeping in view the above literature the following hypothesis has been developed:

\[ H. \text{ Participation in ECAs increases student engagement.} \]

Extra-curricular activities at the Virtual University of Pakistan

Virtual University of Pakistan (VUP) is a federal university established in 2002. Virtual University is a distance learning university having more than 200 campuses across Pakistan. VUP is catering to the educational needs of students across the country and living overseas (Zaheer and Munir, 2020). Considering the need for out-of-the-class activities and their impact on students’ academic performance and grooming, VUP established its ECAs plan under the platform of “LIFE At VU” in 2014. Since then, VUP has successfully conducted its annual activities named “Student Week” every year, having many students participate in clubs and societies.

This section provides the overall procedure of conducting ECAs at VUP.

Societies/clubs

Currently, 15 societies/clubs are working at VUP to promote students’ physical, intellectual, ethical and leadership abilities. These societies/clubs cater to students’ extra-curricular needs in competitions like photography, debates, sports, dramatics, entrepreneurship and voluntarism.

How it works

The VUP is an online distance learning institution. It is critical to involve students in ECAs to enhance their physical and mental growth and give them an experience of excitement and thrill associated with activities other than coursework and studies.

For this study, the activities have been divided into two categories:

1. Activities where no physical presence is required.
Activities where the physical presence of the students is required.

Activities with no physical presence
VUP designed its system utilizing information technology (IT) in a way that maximum students could participate. A web portal is created where students can submit their creative material online. Every student has been assigned a unique VU-ID that can be used to log in to the portal or get registered in any competition or be a member of any club/society. Students who want to be part of Camera Club, Literary Club, IT Club or Society for the rising entrepreneurs are the main focus of this portal.

This paper will take the camera club as an example and discuss its functionality in distance learning institute.

Announcement of competition. Every year before the commencement of Student Week, Camera Club announces a competition where a theme is given. All the students of VUP (national and international) are invited to submit three photographs on the given theme. According to the theme, a tab for photo competition (as shown in the below-given image) is available on the website (societies.vu.edu.pk), where students submit original photographs taken by them (see Figure 1).

After the due date, initial screening is done, and shortlisted photographs (original, according to the theme) are uploaded on the website, and voting is opened for all the students. Each student from VUP can vote for one picture. Meanwhile, the expert photographers make the evaluation. The result is declared with the percentage of experts’ opinion and voting of students, as shown in Figure 2.

During this whole competition, the students are not required to visit any campus; students can submit their creative work online without the limitation of time and place.

The same procedure is followed for other societies where physical presence is not required like, essay competitions, poetry competitions, programming and idea competitions, etc.

Activities where the physical presence of the students is required
Few activities need the physical presence of students like sports and performing arts. These activities need a different approach. VUP has its presence across the country by its campuses in more than 100 cities of Pakistan that have been divided into five regions, and every region is further divided into sub-regions.

Source: https://societies.vu.edu.pk
Announcement of competitions. Every year during “student week” competitions are announced in all the categories like debates, short play, singing and sports activities (cricket, badminton, table tennis etc.). For this study, we shall take cricket as an example of physical presence-based activities in ODL.

After the competition announcement, all the sportsmen/sportswomen must register themselves on society’s web portal (http://societies.vu.edu.pk/Pages/Home.aspx) under the relevant competition. Every campus manager can see the registered students of his/her campus. After the deadline, all the sub-regions’ students are called for trials where a sub-region team is selected. A tournament is conducted at each region where all the teams of sub-regions compete to represent a region. In the grand event conducted at the central level, five teams representing each region compete for Student Week’s winning trophy.

The same procedure is followed for debating competitions, singing competitions, painting competitions and other sports activities.

VUP has been conducting ECAs successfully through this system since 2014 and has engaged thousands of students in various competitions.

Methodology
This is an explanatory study using a cross-sectional design. Individual students of VUP are unit of analysis in the study. It is a quantitative study in which survey research has been employed using an online structured questionnaire.

Target population
This study’s target population is all the students enrolled at VUP during the year 2013–2018. Virtual University started its ECAs in 2014, so the starting year has been set as 2013. Due to COVID-19, student week has been suspended since 2019, so 2018 has been selected as the end year.

Sampling technique and sample size
Purposive sampling has been used to collect the data. With the IT department’s help at VUP, the online questionnaire link was sent through e-mail to all the students enrolled during 2013–18.
An e-mail was also sent to all the students registered in any society at the “Life at VU” web portal. Campus managers were also involved in getting maximum response from the students. Around 1,500 responses were received; after excluding the missing data and incomplete responses and responses of students who were not part of VUP during 2013–18, the data of 907 students were available for further analysis.

Data collection
A survey questionnaire has been used to get the responses from students. Different researchers have developed questionnaires to measure student engagement at the university level, while few authors attempted to measure engagement in ODL settings like Dixson (2015) and (Yang, 2011). But these questionnaires have focused on the content or procedures of the curriculum. Considering the study’s unique nature, which focuses on ECAs, none of the questionnaires used in ODL related research could be used. However, an instrument developed by Gunuc and Kuzu (2015) that measures students’ psychological engagement, cognitive engagement and emotional engagement was used in the study. This study is being conducted on the ODL students; so, only one dimension, “psychological engagement”, has been measured, using two sub-dimensions: valuing and sense of belonging. The questionnaire consisted of 14 items.

Reliability analysis
The questionnaire consisted of 14 items, 3 items measured valuing, and 11 items measured belongingness.

The instrument’s reliability has been 0.921, which is considered very good. This high-reliability score indicates that the instrument was consistent in measuring the underlying concepts.

Data analysis
The primary aim of this study is to measure the effects of ECAs on student engagement. For this purpose, two groups have been identified—those who have never participated in any ECA and those who participated in any such activity.

Table 1 shows group statistics. Code “1” was assigned to those who participated in ECAs, and code “2” was given to those who did not participate in the ECAs.

Table 1 shows that 429 students participated in ECAs while 478 did not take part in ECAs. The mean of student engagement for participating students is 4.077 and for non-participating students is 3.927.

To check if the mean difference between the two groups shown in Table 1 is statistically significant, an independent sample t-test has been applied to measure the differences in students’ engagement level with their institution. The data set complied with all the assumptions of the t-test. Dependent variable engagement is measured on a continuous scale; the independent variable is participation, a categorical variable, observations were independent of each other, the dependent variable is normally distributed. Homogeneity of variance is established through Levene’s test (Pallant, 2011).

Table 2 shows the results of the t-test.

Levene’s test shows that both groups came from populations with equal variances as p-value 0.377 is greater than 0.05. It exhibits that one of the assumptions of the t-test,
homogeneity of variance, is established. The $t$-test results indicate a statistically significant difference in the students’ overall engagement, who participate and who do not participate in the ECAs. This result shows that taking part in ECAs significantly affects students’ engagement in distance learning.

Student engagement is made up of two sub-categories valuing and belongingness. After establishing the overall significance of student engagement of participating and non-participating students in ECAs, the statistical significance of valuing and belongingness is discussed individually.

Table 3 shows the $t$-test result of valuing.

Participation in ECAs does not affect the valuing of the students towards their institution. It implies that students appreciate their alma mater in any case, whether they participate or do not participate in ECAs.

Table 4 shows the independent sample $t$-test regarding the students’ belongingness towards their institution.

It is evident from Table 4 that participation and non-participation in ECAs are highly significantly different phenomena. The mean score of those who participated in the ECAs was 3.9018, while those who did not participate was 3.6213. The difference was highly significant, showing that participation enhances students’ sense of belongingness towards their institution.

Discussion

It is a common belief that a healthy body keeps a healthy mind, and to act upon this universal advice, educational institutes conduct ECAs for their students. The conduct of such activities in traditional on-campus institutions is a norm and routine. But arranging these activities in a distance learning institute where students are separated by time and space is a big challenge. The VUP accepted this challenge and initiated ECAs at the university in 2014. These activities range from indoor games like online gaming, painting and badminton to outdoor games like cricket and futsal.

Moreover, competitions like debating, drama and fine arts are also being held. Students from all over the country and overseas participate in these games and contests. Arrangement of all these activities, which are termed “Student Week”, has been a new trend in distance learning institutions. This is a unique practice that has made students more enthusiastic and connected.

This study also focused on the students’ reaction towards participation in ECAs. The study results show that student participation in ECAs positively affects the overall student engagement with the university. For this study, participation is an independent categorical variable, and psychological engagement has been taken as a dependent variable comprised of two dimensions, valuing and belongingness. Valuing is defined as students’ feelings towards their institution and the value they associate with being part of that institution (Gunuc and Kuzu, 2015). While, belongingness is defined as the feelings of students that they are accepted by other members of their institution (teachers, students) (Goodenow, 1992). Ndudzo (2013) found that students’ engagement in ODL is driven by the communication between students and universities and the relationship between students. These ECAs are a source of interaction between peers and the universities. The same has been found in our study. Table 5 shows a significant difference in students’ belongingness who participated in ECAs compared to those who did not. It explains that communication and interaction between students and the university can increase students’ engagement and affiliation with their institution. Foley and Marr (2019) found that students’ participation in ECAs enhances the sense of belonging to a community in ODL setting. Henrie et al. (2015) also observed that participation in society/clubs could improve students’ belongingness, supporting the findings of the current study.

In contrast, no significant difference in the “Valuing” dimension of engagement has been found in the participation or non-participation group. It shows that students give value to
Levene's Test for Equality of Variances

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Table 2. Independent samples test (Engagement)
Levene's Test for Equality of Variances

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Table 3. Independent samples test (Valuing)
### Levene's Test for Equality of Variances

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<td>0.28047</td>
<td>0.05513</td>
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**Table 4.** Independent samples t-test (Belonging)
their university irrespective of their participation in any ECAs. It can be inferred that taking part in ECAs does not affect the value they give to their institution, as getting admission reflects the value given to their choice.

When the composite variable “Engagement” comprising valuing and belongingness was tested, it was statistically significant, as shown in Table 3. Students who participated in ECAs showed a higher mean score of 4.0772 than those who did not, with a mean score of 3.9275. This result confirms the proposed hypothesis that participation in ECAs increases student engagement. If an institution wants to increase student engagement, ECAs are among the many sources that can be used. These activities increase student engagement, self-confidence, employability skills and motivation, which is the educational institution’s ultimate objective.

Though a large number of students participate in ECAs, still many students do not participate. There are certain reasons for non-participation in ECAs. VUP is an online distance learning institute where students get admission due to flexibility and ease of study. Many students are working professionals who are unable to join ECAs due to their job commitments. Tran (2017) also identified students’ job commitments as a reason of less participation in ECAs. Location can pose a barrier for student participation (Dickinson et al., 2021). Due to cultural barriers, the travel of female students becomes an impediment to participation in ECAs. However, by participating in online competitions, some students compensate for their absence in games that require physical presence.

To increase the participation of students in ECAs, VUP is using multiple sources like e-mails, text messages or social media. Social media is an effective source to increase students’ interest in various activities (Robbins and Singer, 2014). Considering the importance of social media, VUP has launched an independent Facebook page of “Life at VU” with the aim to provide students with a platform where they can share their experiences of various competitions and socialize with other students. The social media presence of ODL institutes can enhance student engagement and participation (Morton et al., 2019).

**Limitations and directions for future research**

The results of this study have been derived from the data gathered from one university only that might hinder the generalizability of the findings. Future studies can replicate the same study in other ODL institutions to authenticate the findings. The mechanism of ECAs discussed in this study is developed based on the available resource and cultural and structural dynamics of the institution and the country. ODL institutions of other countries can design it as per their dynamics. Moreover, a comparative study of different countries can be conducted in future to see the differences in approach of conducting ECAs and student engagement.

**Conclusion**

This study found that ECAs in ODL can be conducted successfully. Students in ODL complain about being socially disconnected; such practices can mitigate these negative perceptions towards ODL as VUP has been conducting such activities for the last seven years.

It was also found that participation in ECAs enhances students’ belongingness to their institution, resulting in student retention and lowers the dropout rate in ODL.

This study attempts to bring into light an important factor of student engagement in ODL that has been ignored. This study has provided empirical evidence that ECAs are equally crucial for conventional and non-conventional learners.

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