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Participation of Students in the Faculty of Science, University of Ruhuna in Extra-curricular Activities: A Preliminary Study

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Abstract

This study explored the student involvement in extracurricular activities (ECA), students' impression on the importance of ECA, difficulties associated in attending ECA and suggestions to improve participation in ECA in the Faculty of Science. An online survey was conducted using a questionnaire prepared as a Google form. Altogether, 292 student samples were obtained from four academic levels, I, II, III and IV representing 18.0%, 30.8% 21.3% and 46.8% of the total number of registered students, respectively, using systematic random sampling method, over a period of seven days. Non-parametric test (Wilcoxon rank test) was performed to determine the significant differences of student participation in ECA using the SAS statistical package.

The findings showed that the participation of Level I students in ECA was significantly lower ($P < 0.0001$) compared to other levels, which was mainly due to converting academic activities to online mode with the Covid-9 pandemic. The involvement of Level II, III and IV students in ECA ranged from 70-72% and showed a significantly higher ($P < 0.0001$) participation in multiple ECA, compared to single event participation. In contrast, Level I students showed lower participation rate in multiple events. Altogether, respondents involved in 50 competitive and 42 non-competitive ECA and a higher proportion, i.e., 70%, participated in non-competitive ECA such as cultural and religious events, workshops, exhibitions, symposiums and seminars. Competitive ECA were associated with sports, arts, Hackathons and quizzes. Both competitive and non-competitive ECA were conducted in faculty, university, inter-university and global level; however, faculty level participation appeared to be higher than the other levels. In total, there were 24 student societies in the faculty through which various ECA have been conducted even at the community level. Students have taken key roles while attending various ECA.

Majority of the students expressed their views in a positive manner towards the participation in ECA. However, students highlighted the difficulties in joining ECA and made important suggestions which are needed to be thoroughly discussed. This basic survey provided a good insight into a progressive approach of ECA in the Faculty of Science.

Keywords: Extra-curricular Activities, Faculty of Science, Societies, Systematic Random Sampling Method, Non-parametric Test (Wilcoxon Rank test)

Introduction

Extra-curricular activities refer to the activities performed by the students outside the framework of course modules. Students do not receive any grades for their involvement in ECA (Dacombe, 2014; Chua et al., 2017). Participation in ECA depends on the students' personal preferences. In order to ensure quality education, it is of paramount importance to encourage undergraduates to be involved in ECA with their full capacity amongst their routine academic work. It has been reported that students who participate in ECA achieved better grades in their academic activities compared to students who did not take part in any of the ECA (Ingale, 2014; Dhanmeher, 2014). Cosinger (2011) indicated that student participation in ECA increases self-confidence, improves innate skills, leadership qualities, mental health and team work within the university. Apart from that, involvement in ECA has a positive impact on securing a place within a highly competitive job market.

Currently, the Faculty of Science has a total of 1182 undergraduates of which 422, 357, 324 and 79 belong to academic Levels of I, II, III, and IV, respectively. There are numerous ECA organized by the Faculty of Science or the University and all the students can take part in these activities based on their personal interests. The students can join a variety of competitions and/or just participate in diversified events organized by student societies/clubs within the Faculty (Anonymous, 2021) or University. The objectives of this study were to explore the student participation in ECA, identify student impression on participating ECA, difficulties associated with attending ECA and suggestions to improve participation in ECA within the Faculty. The ultimate aim of this study was to facilitate the process of producing graduates bearing different skills via encouraging participation in ECA in the Faculty of Science.

Methodology

An online survey was conducted using a questionnaire which was prepared as a Google form and uploaded to the Faculty of Science Management Information System (FOSMIS) on 17-07-2021. In the FOSMIS, the purpose of the survey was mentioned as follows: "The purpose of this survey is to identify your involvement in various extracurricular activities in the Faculty of Science. The ultimate

aim of the survey is to improve the soft skills, encourage your participation and identify any barriers or difficulties in participating in such activities. Thus, please respond to this as early as possible”. In order to collect responses, the systematic random sampling method was used across the student population within which four sub samples were taken from four strata representing four academic Levels, I, II, III and IV (special degree students). In each stratum, responses were obtained from at least 15% of the total number of registered students.

Responses were collected over 7 days. The questionnaire consisted of 10 questions (Table 1). Questions related to personal information on students were excluded from the survey to avoid ethical issues. The responses were analysed by calculating percentages to identify the key trends. The Wilcoxon rank test was used to determine the significant differences of student participation in ECA among the four academic levels with the aid of the SAS statistical package.

Table 1: Questions used in the online survey

No	Section	Question
1	Section 1	What is the current academic level of the degree program you follow?
2		Have you participated in any extra-curricular activity (ECA)?
3	Section 2 (repeated up to 4 times)	Name of the ECA
4		Category of the ECA (competition, community activity, sport, etc.)
5		Role you played in this ECA
6		Scope of the ECA (faculty level, university level, etc.)
7	Section 3	Have you joined any society in the faculty? Mention the names of the societies.
8		Do you think that ECA are important? Write the reason for your answer.
9		Any barriers/difficulties that you have faced in attending such ECA in the faculty/University?
10		Your suggestions to increase the participation of students in ECA?

Results and Discussion

Of the total number of participants, Level I, II, III and IV students represented 26.03%, 37.67%, 23.63% and 12.67%, respectively. As a whole, 62.33% of the students participated at least in a single ECA. The level of participation significantly (Chi-Square = 25.59; df = 3; $P < 0.0001$) varied with the academic level. Involvement of Level I students in ECA, was lower than other three levels (Figure 1). The highest percentage participation was detected with Level III students (72.46%) while Level II and Level IV participation was similar (70%). Of the students who participated in ECA, 58.79% showed

multiple participation (Figure 2). Significant differences were detected in student participation between single or multiple events among the four academic levels (Chi Square = 15.78; $df = 3$; $P < 0.0013$). Multiple participation in ECA was higher in the students in Levels II, III and IV compared to the participation in single events. However, the opposite was detected in Level I students.

Among the ECA, two main categories can be identified as competitive and non-competitive. Thirty percent of the students attended various competitive ECA while 70% have taken part in non-competitive ECA (Figure 3). In total, 50 competitions were detected, i.e., sports, cultural, Hackathons and quiz competitions mainly, and conducted in faculty, university, inter-university and global levels. Students have attended 42 non-competitive ECA, e.g., cultural and religious events, workshops, exhibitions, symposiums and seminars, and community level activities. The highest participation in ECA, i.e., 48.49%, was detected in the faculty level followed by the university level (30.15%). 2.01.% (08 students) have attended international competitions namely IEEE Xtreme-5 and Code-Jam-2 under Hackathons. In Level 1 students, participation in non-competitive activities were higher than the competitive activities. However, such a trend was not noticeable for the other three levels. Some students played key roles in these ECA activities, i.e., captain, vice-captain, president, vice president, secretary, team leader, ambassador, chief organizer. In the Faculty of Science, 24 student societies have been established and students engage in various ECA in connection with different societies. These societies can be classified as subject related, religious, research orientated, sports, arts, language and enhancement of leadership qualities. Majority of societies are subject-related.

Ninety nine percent of the students mentioned that the participation in ECA is of great importance (Table 2). However, some students have mentioned that they were unable to balance the ECA with the academic work. A few students stated that they did not get any chance to attend ECA even though they were involved in ECA at school level. Students also indicated 17 difficulties/barriers in attending ECA (Table 2). Further, 13 important suggestions were forwarded to improve participation in ECA (Table 2).

In conclusion, students of the Faculty of Science are greatly involved in competitive and non-competitive ECA. A higher proportion of students maximally utilized the opportunities mainly within the faculty. Diversified societies established in the faculty enabled students to be involved in ECA. Community targeted ECA are of great importance to create links between University of Ruhuna and the society. The low level of participation in ECA in Level I students was associated with the recent Covid-19 pandemic which led students to stay at home after completing their academic work for only one semester. The difficulties mentioned by students in attending ECA are needed to be discussed.

Suggestions made by students are also taken into consideration to promote participation in ECA to ensure quality in university education.

Table 2: Information on the importance of extracurricular activities, difficulties faced and suggestions to improve provided by students

Question	Student responses
Importance of ECA	<ul style="list-style-type: none"> ● Improve knowledge, abilities and attitudes, confidence in achieving targets, decision making, leadership qualities, communication, organizing skills, self-behaviour, time management, teamwork, physical and mental wellbeing, sharing and caring ● Learn to work under pressure, face challenges and find solutions to practical problems ● Building extra qualifications need for the career ● Help to identify themselves and to understand their potential ● Help to become versatile in many fields / collect various life experiences ● Expand networking with people (people from other batches, faculties, universities, local/foreign professionals), improve social life and unity ● Understand the responsibility as a citizen and to make a good impact on the society ● Get chances to uplift the University ● Get chances to obtain University-level certificates
Difficulties faced	<ul style="list-style-type: none"> ● Degree requirement of 80% attendance for academic activities and attendance related issues arise when participating for practices ● No coaches for sport practices and need to travel a long distance to attend sport practices, inability to stay at university in the evening/ weekends, safety issues in travelling back to residence at night after practices ● Heaviness of academic work/ difficulty in balancing ECA with academic work/ time management issues ● COVID19 pandemic ● Do not like online activities/ heavy data charges/ connectivity related issues/ shifting activities to online mode ● No activity/society in university which matches the preference ● New to the university environment and studying pattern, do not know about available ECA/ do not know how to join ● Tried joining but no official responded/ lack of communication ● Fear to get responsibilities/ scared to join due to less experience working in teams and less English proficiency ● Less direction and less facilities/ resources/ sponsorships/ funding problems

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Question	Student responses
	<ul style="list-style-type: none"> ● Peer pressure due to object ragging/ political stigma associated with students ● Being bias in selecting/giving opportunities/ no equal opportunities for all students ● Lack of help from Faculty/Department in organizing events/ preparing funds ● Faculty's/department's lack of knowledge about local/ global trends in activities ● Societies do not have any determination in conducting activities/ obtaining opportunities ● Health related issues and economic issues
Suggestions to improve	<ul style="list-style-type: none"> ● Allocate a specific time/more time to participate in ECA ● Encourage students to get involved in ECA (by academics and by professionals from career world) ● Include compulsory requirement of participate in ECA to the curriculum ● Arrange diverse programs to meet diverse preferences ● Arrange programs where students can use academic knowledge in practical situations ● Arrange games/joyful activities to attract students to ECA/Societies ● Effectively communicate information related to ECA (through the website, FOSMIS, social media, a virtual notice board, orientation program, awareness sessions etc.) ● Provide proper appreciation/certificates for participating/organizing events ● Make arrangements to provide equal chances for every student despite of being biased/ avoid political influences ● Make arrangements to improve communication skills of students (less communication skills lead them not to participate in ECA) ● Improve sports facilities/coaching at faculty ● Continue ECA virtually during the pandemic/ Vaccinate and start physically as soon as possible ● Provide financial support ● Help students with difficulties (fear, lack of confidence) to step out of their comfort zones

(The study was based on the online survey and total number of respondents = 292).

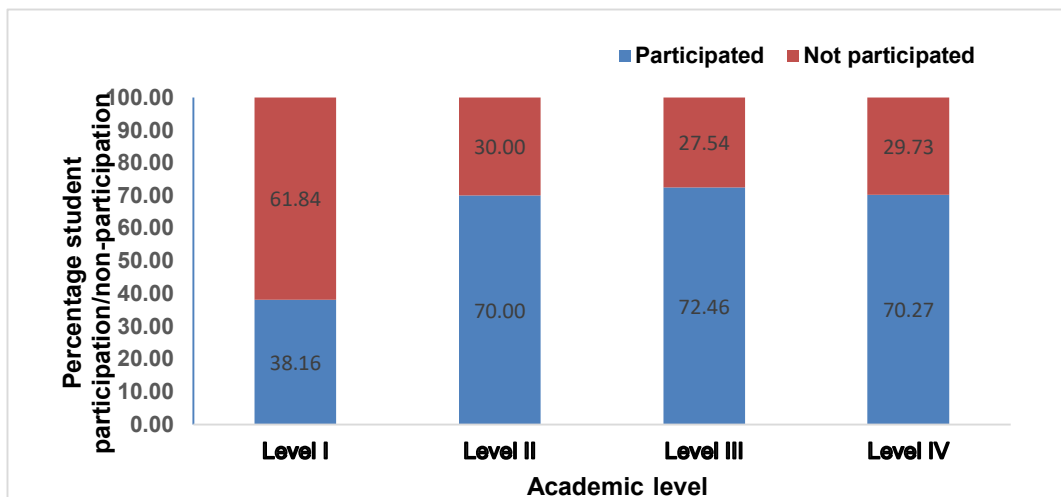


Figure 1: Status of student participation in extracurricular activities, Faculty of Science. The study was based on the online survey and total number of respondents = 292

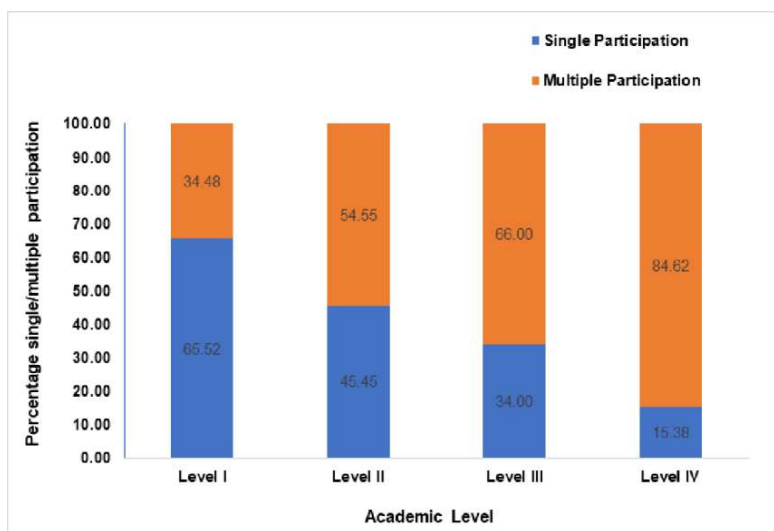


Figure 2: Status of single/multiple student participation, Faculty of Science. The study was based on the online survey and total number of respondents = 292).

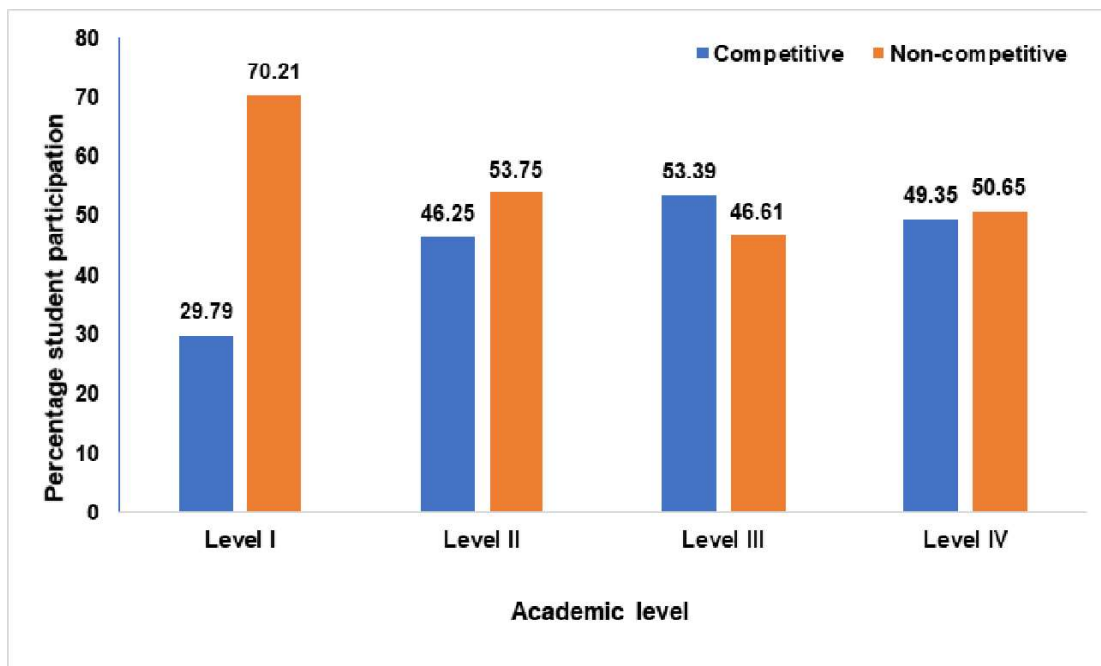


Figure 3: Status of student participation in competitive and non-competitive events, Faculty of Science. The study was based on the online survey and total number of respondents = 292).

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