

SUS Urdu based Evaluation of Websites of Higher Educational Institutes of Pakistan

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Abstract- An institute needs to grow day by day in all aspects like a large number of admissions, educational quality, innovations, etc. Educational marketing provides a variety of opportunities for an institute by getting the attention of students. The students seeking admission for higher education can check the official website to get the know-how of an institute as it's the first authentic source of information. The website must be easy to use for students to get the latest information. In this study, the websites of the University of Engineering and Technology, University of the Punjab, and University of education are evaluated through the SUS scale developed in the Urdu language. A total of 60 participants were engaged. The results show that the SUS score of these websites was in the "low marginal" range.

Index Terms—Usability, System Usability Scale, Educational Websites, Urdu, SUS, Educational Institutes.

I. INTRODUCTION

In the current era, sharing information by the website is the easiest and most cost-effective tool [1]. To design a user-friendly website that fulfills the user requirements is a challenging task [2] [3]. The website of a higher educational institution is a platform for sharing its information like offered programs, program road map, fee structure, eligibility criteria, admission procedure, etc. It also provides an easy platform to enroll and fill admission forms online.

Usability, along with accuracy and security, is a key factor for evaluating websites from the user's point of view. A usable product saves the user from stress and frustration by saving time[4]. The questionnaire is one of the preferred techniques used by the researchers for the evaluation of a system's usability because of its simplicity and affordability. It efficiently presents the stance of users about a particular system[5]. To statistically assess the opinion of the user Likert-type questionnaire is used[6]. They assess how a user feels about a system.

For usability evaluation of the system, there are many questionnaires like Computer System Usability Questionnaire (CSUQ)[7], Questionnaire for User Interface Satisfaction (QUIS)[8], and System Usability Scale (SUS) [9], etc. The CSUQ is comprised of 19 questions, each with a seven-point rating scale ranging from "Strongly Disagree" to "Strongly Agree." QUIS consists of 27 questions, each of which is a ten-point scale with a suitable answer at the end.

SUS (developed by Brooke in 1986) is a ten-question scale with a Likert scale. The even questions represent positive aspects while the odd represent negative. Each question has a five-point scale ranging from "Strongly Disagree" to "Strongly Agree." It's a flexible scale that can be evaluated using different survey tools such as Survey Monkey, Google Forms, Qualtrics, and others.

The past has witnessed the use of SUS for various products and systems. These products and systems include websites [10], voice response systems[11], desktop applications, mobile apps [12], etc. The score of SUS ranges from 1 to 100, where the average is 68[13]. If the score is above 70 then it is considered acceptable[14]. In this study that the usability of websites of different universities has been evaluated.

II. METHODOLOGY

In the current research, first, the websites of popular universities in Lahore were selected. After this, the tool for usability evaluation and targeted participants were chosen. Then the response was collected and evaluated.

A. TARGETED UNIVERSITIES

For this research, the websites of three HEC recognized public sector universities i.e., University of Engineering and Technology, University of the Punjab, and University of Education were chosen.

B. PARTICIPANTS

The data was collected from the different colleges, situated in Lahore, Pakistan. 60 students of the Intermediate level participated in this usability study and were selected voluntarily. All of them were well aware of computers and browsing.

Out of 60 participants, there were 53 males (88.3%) and 7 females (11.7%) as shown in Fig. 1.

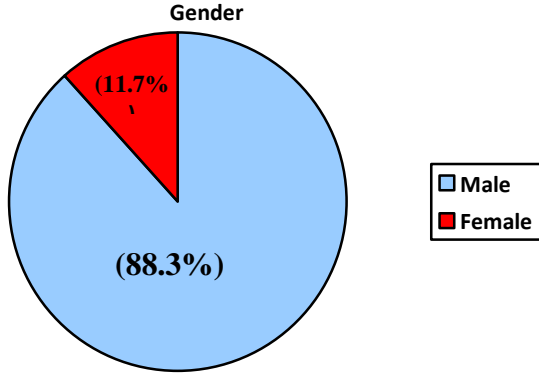


FIGURE 1. Male and female participants

As shown in Fig. 2 the age group of 88.3% participants was 16-18 years while 11.7% belonged to 19-20 years.

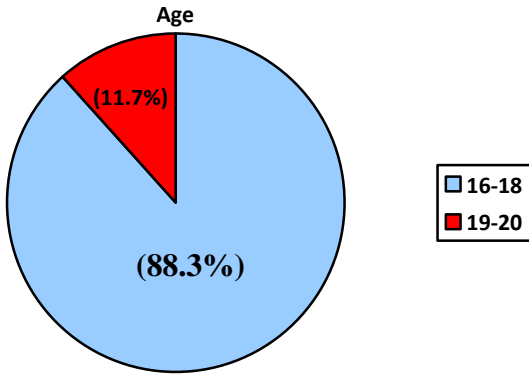


FIGURE 2. Age graph of participants

C. USABILITY QUESTIONNAIRES

The system usability scale is preferred because by far it is the most frequently used standard questionnaire [12], with over 1200 publications citing it. It is open source and can be used to get accurate results even with fewer samples [15]. As it consists of only ten questions which makes it interesting for participants and it will not lose their interest. Moreover, its Urdu version [16] is adopted to assess usability in this study. Filling up System Usability Scale - Urdu (SUS-U) questionnaires allowed participants to understand the questionnaire more easily and then make submissions. The participants were given ten statements concerning each of the notable university websites in

this fashion as shown in Table I and Table II. Based on the scores provided on the form, participants indicated their level of agreement. The scale ranged from 1 to 5, where 5 denotes strongly agree and 1 indicates strongly disagree opinion. Google Forms was used to generate this form.

TABLE I: SUS-ENGLISH QUESTIONNAIRES

Sr#	SUS-English
1	I think that I would like to use the website of this institute most frequently.
2	I found the website of this institute unnecessarily complex.
3	I thought the website of this institute was easy to use.
4	I think I would need assistance to be able to use the website of this institute.
5	I found the various functions on the website of this institute well integrated.
6	I thought there was too much inconsistency in the website of this institute.
7	I would imagine that most people would learn to use the website of this institute very quickly.
8	I found the website of this institute very cumbersome/awkward to use.
9	I felt very confident using the website of this institute.
10	I needed to learn a lot of things before I could get going with the website of this institute.

TABLE III: SUS-URDU QUESTIONNAIRES

Sr#	SUS-Urdu
1	مجھے لگتا ہے کہ میں انسٹی ٹیوٹ کی ویب سائٹ کثرت سے استعمال کرنا چاہوں گا۔
2	میں نے انسٹی ٹیوٹ کی ویب سائٹ کو غیر ضروری طور پر مشکل پایا۔
3	میرا خیال ہے کہ انسٹی ٹیوٹ کی ویب سائٹ استعمال کرنا آسان ہے۔
4	میرا خیال ہے کہ مجھے انسٹی ٹیوٹ کی ویب سائٹ کو استعمال کرنے کے لئے کسی ہنر مند شخص کی ضرورت پڑے گی۔
5	میں نے انسٹی ٹیوٹ کی ویب سائٹ میں بہت سے فنکشنز کو مکمل طور پر سے کام کرنا پایا۔
6	میرا خیال ہے کہ انسٹی ٹیوٹ کی ویب سائٹ میں بہت زیادہ تضاد ہے۔
7	میرے خیال میں زیادہ تر لوگ آسانی سے انسٹی ٹیوٹ کی ویب سائٹ کو استعمال کرنا سیکھ جائیں گے۔
8	میں نے انسٹی ٹیوٹ کی ویب سائٹ کو استعمال کرنے کے لئے بہت بوجھل پایا۔
9	میں نے انسٹی ٹیوٹ کی ویب سائٹ کو استعمال کرتے ہوئے بہت پر اعتماد محسوس کیا۔
10	مجھے انسٹی ٹیوٹ کی ویب سائٹ کو استعمال کرنے سے پہلے بہت سی چیزوں کو سیکھنا پڑے گا۔

PROCEDURES

For this study, the link of google forms was sent to all the participants. On the top of the form, the researcher gave a brief explanation of the aim of this study and how it will be carried out. Next, participants were asked to browse and perform random tasks on the website of UET, PU, and UE. The tasks were like checking the eligibility criteria for getting admission in different programs, checking the fee structure, etc. The participants completed the SUS after completing the usability tests, and the results were assessed.

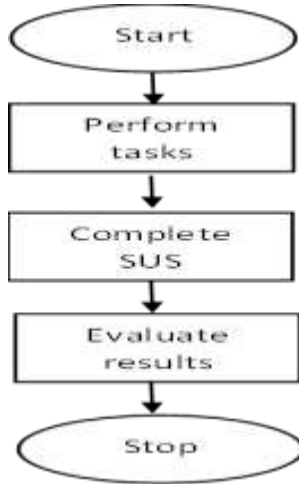


FIGURE 3. Flowchart of methodology

III. RESULTS

A. DESCRIPTIVE STATISTICS

Table III provides the frequency and average (SUS) for different groups of participants in which different factors like gender, age, and internet use of frequency.

TABLE III: FREQUENCY AND AVERAGE SUS SCORE, N=60

Factor	Category	Frequency	Percentage	Avg SUS UET	Avg SUS PU	Avg SUS UE
Gender	Male	53	88%	62	64	64
	Female	07	12%	74	70	76
Age	16-18	55	88%	62	64	64
	19-20	15	12%	63	64	65
Internet frequency of use	Daily	47	78%	63	64	65
	3 times a day	5	8%	64	65	65
	More than 3 times a day	8	14%	59	62	62

B. AVERAGE SUS SCORE RATING

The mean SUS score of the result is shown in Fig. 4. The results of this research show that there is a need of improving the designs of all targeted websites as their score is low marginal range. If usability is improved then it will become easy for students to get the desired information about an institution.

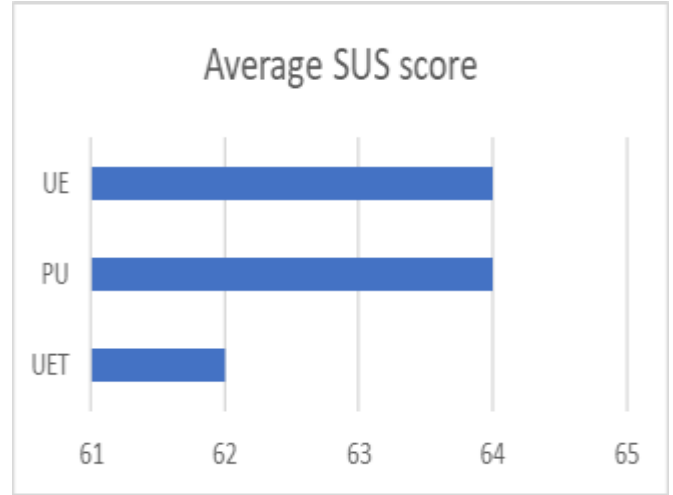


FIGURE 4. Average SUS score of targeted universities

C. ADJECTIVE SCALE RATING

The adjective rating scale is given in Fig. 5.

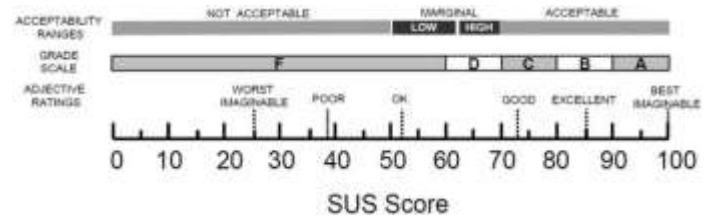


FIGURE 5. Adjective rating scale

IV. CONCLUSION

This research examines the SUS – Urdu evaluation of higher education websites in Lahore, Pakistan. The findings demonstrate that all of the participants were experienced Internet users who had no trouble while participating in this survey. According to the findings of this study, the University of engineering and technology has a SUS score of 62, the University of Punjab, and the University of Education has a SUS score of 64. According to the SUS scale, these results indicated that all considered websites are in the "low-marginal" range. In the future, the detailed issues for low usability scores can be found by performing heuristic evaluation thorough usability experts.

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