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Abstract. This study aims to describe the soft or personal skills of the B.S. Information Technology students of Nueva Ecija University of Science and Technology, Nueva Ecija, Philippines, in School Year 2020-2021. Percentage, weighted mean, and ranking were used to describe the students' skills. Generally, the results showed that students believed that the top 2 essential skills during the pandemic are negotiation and stress management. For them, speaking in a friendly manner and clarifying in case of misunderstanding are critical in a negotiation. On the other hand, respondents highlighted that requirements must be done before the deadline to be free from stress.

Keywords: adaptability; COVID-19; negotiation; pandemic; self-directed learning; soft skills; stress management.

INTRODUCTION

The COVID-19 pandemic is so severe that it is felt worldwide, especially its devastating effects on the economy, livelihood, and personal life. As of March 2020, governments around the world created measures in an attempt to reduce the virus spread. The most common of these measures is the lockdown. The businesses (except the essentials), industries, churches, travel, and public places such as parks and entertainment are closed. Even universities and schools are no exemption. COVID-19 forever change the landscape of society from working in an actual site/office to working remotely or from home. These transformed face-to-face communication into chat and video conference meetings such as Zoom and google meet, which some people find more comfortable and beneficial. Still, others experience tiredness, fatigue, and exhaustion. Like employees, the students are also forced to work apart from one another and stay and study in their homes at the mercy of their equipment and internet connection.

As many workers lost their jobs due to their work being incompatible in the pandemic, many workers reskilled and adopted other jobs, particularly digital-related ones. Many professionals found working remotely to work–life balance, a survey conducted in 2020 by [1], found that workers' performances had improved (despite the stresses of the pandemic). Some of the top reasons respondents gave for their increased productivity include fewer interruptions (68%), more focused time (63%), a quieter work environment (68%), a more comfortable workplace (66%) and avoiding office politics (55%). Most of these professionals are adaptive, innovative, flexible, and productive due to their education, experiences, and their art of negotiation. They also have the right attitude, willingness to learn, and persuasive skills, considered soft skills.

Soft skill is a sociological term relating to a person's "EQ" or Emotional Intelligence Quotient. These skills, according to employers, are positive attitudes, a friendly personality, communication or negotiation skills, presentation, adaptability, teamwork, stress management, and good habits. These traits are significant and highly valued in these pandemic times. The same report also revealed that the opposite of soft skills are hard skills which are physical skills such as fixing and

repairing mechanical, electrical, plumbing, carpentry, or automotive. Other skills are farming, cooking, gardening, cleaning, computer programming, computer networking, troubleshooting, and administration [2].

Moreover, according to the survey results of Harris Poll for Yoh.com, they found out that if hiring for a job and the perfect applicant did not exist, 75 % of Americans would most likely pick a job candidate with soft skills rather than the necessary experience or credentials [3].

With all the data presented above, the researchers came to a generalisation that soft skills are significantly required in a competitive market in both pandemic and post-pandemic situations. Under the pandemic environment, today's students (the future professionals, employees, and employers) are governed by online classes' restrictions and rules. The availability of software and hardware, internet load and signal affects their soft skills: willingness to learn, their way of adapting to situations, their negotiation or communication skills and how they handle and manage stress and anxiety.

As a result, this study attempts to define the soft skills of Bachelor of Science in Information Technology students during the pandemic when they are all studying or working in the comfort of their homes.

METHODOLOGY

The normative survey method was used to discover the essential soft skills of BSIT students during the pandemic. According to [4], a normative survey is commonly used to explore opinions according to respondents that can represent a whole population. The survey is appropriate in this study because it enables the researchers the formulation of generalisations.

The total number of students is significant from the first to the third year. Hence, the researchers used 45% of the population as their respondents. In selecting the sample, they got the list of first-year to third-year BSIT students, arranged by year and section, from the Management Information System (MIS) Office. Then, they selected all the respondents systematically.

The researchers used a survey tool composed of 40-item statements covering the skills under the survey: self-directed learning, negotiation, adaptability, and stress management.

A 5-point Likert Scale, as shown below, was used to describe the student respondents' perceptions.

Interval		Verbal Description
4.20	5.00	Strongly Agree
3.40	4.19	Agree
2.60	3.39	Neutral
1.80	2.59	Disagree
1.00	1.79	Strongly Disagree

The face and content validity of the questionnaire was established through consultation with experts who are considered knowledgeable in this area. Their suggestions and recommendations were incorporated into the questionnaire for its improvement. To test the reliability of the questionnaire, a dry run was conducted with other IT students of the Nueva Ecija University of Science and Technology. These students were not included as part of the actual respondents.

Based on the dry run results, changes were made and incorporated into the questionnaire. Cronbach's Alpha was used to determine the internal consistency of the instrument. The reliability coefficient yielded 0.78, considered moderately high, indicating the device's reliability.

The data gathering procedure was divided into four main phases: 1) preparation of request letters seeking permission to conduct the study; 2) administration of the instrument; 3) retrieval of the instrument; 4) organisation and analysis of collected data.

RESULTS AND DISCUSSION

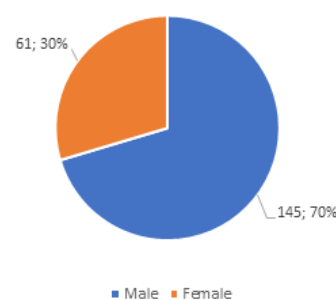The profile of the Respondents presents in Figure 1.

Figure 1 – Profile of the Respondents as to Sex

Figure 1 shows that the majority of the student respondents, 70%, are male. At the same time, 30% of them are female. This indicates that regardless of the year level, the BSIT program is dominated by male students. A similar finding was revealed in the study of [5], that there are gender gaps, with men continuing to dominate in STEM fields, which is an international trend. Likewise, authors [6] revealed similar results.
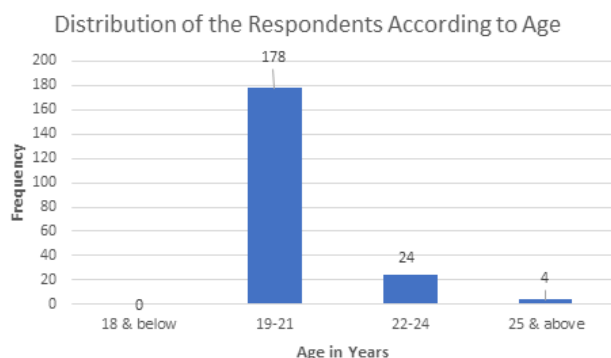

Figure 2 – Profile of the Respondents according to age

Figure 2 shows that the majority of the respondents, more than 86%, are between the ages of 19 to 21 – the typical age of junior college students.

Table 1 summarises the student respondents' perceptions of the soft skills needed during the pandemic.

Table 1 – Respondents' Perceptions of the Soft Skills Needed by the Students in Time of Pandemic

Skills	Weighted Score	Rank
Self-directed learning skills	3.47	3
Adaptability skills	3.45	4
Negotiation skills	3.85	1
Stress management skills	3.55	2

The COVID-19 pandemic has taught teachers and students to develop essential skills to thrive and survive during the pandemic. This research revealed that the top 2 skills that became very useful to the student-respondents during this time are negotiation and stress management skills, with a weighted score of 3.85 and 3.55, respectively.

The term negotiation skill, as used in this study, refers to one's ability to build stronger relationships with others. This skill also allows the student-respondents to think quickly on their feet

while responding to challenging situations peacefully and constructively.

The second essential skill students must possess time, especially during the COVID-19 pandemic, is stress management skill. This skill is critical because students must deal with stressful issues and factors affecting their academic performance. Their ability to practice stress management will help them improve their positive psychological state, which will help improve their vitality and mental well-being [7].

Table 2 presents the perceptions of the student-respondents on the importance of self-directed learning, adaptability, negotiation, and stress management skills.

Table 2 – Perceptions of the Respondents on Self-Directed Learning

Self-Directed Learning	Weighted Score	Verbal Description
I have learnt a lot during online meetings.	3.61	Agree
I have learnt our lesson through our Facebook messenger sessions.	3.31	Neutral
I have learnt from the recorded YouTube videos of my instructor.	3.64	Agree
I have learnt from the books and materials that my instructors gave me.	3.34	Neutral
I take notes during online classes.	3.17	Neutral
I like the pace of our discussions	3.58	Agree
I can quickly catch the information during online class	3.25	Neutral
After the online class, I reflected on the lessons that we had, and I learned from it	3.29	Neutral
I can perform the tasks given to me by my instructor/s with limited supervision from his/her	3.56	Agree
I can search for additional information about our topic through the internet.	3.99	Agree

The data above depicts the respondents' perceptions regarding the importance of self-directed learning, particularly during the pandemic,

where most classes are online. For the student-respondents, self-directed learning is possible when they are given recorded video presentations and internet resources that they can use to understand and comprehend the lesson better. Books and modules and attendance to online classes are better than when students were given online resources to use. The importance of this skill was acknowledged in the study conducted by [8], where he concluded that self-directed learning could help promote personalised learning. Its self-reliance, independence, and personal motivation help the singular learner trying to survive a pandemic.

Table 3 – Perceptions of the Respondents on Adaptability

Adaptability	Weighted Score	Verbal Description
I can see the presentation online, and I find ways to adjust it	3.60	Agree
I prepare sufficient funds to load and pay for my internet plan to join the online class	3.51	Agree
I charge my gadgets before online classes and make preparations in case of brownouts and power failures	3.80	Agree
I prepare my secondary electronic gadgets in case my primary device fails	3.25	Neutral
I remember my online lessons during quizzes and exams	3.58	Agree
I can troubleshoot and fix software problems of the LMS apps installed in my electronic gadgets	3.28	Neutral
I can manage multiple learning platforms required by my instructors	3.38	Neutral
I can find ways to download and learn the material or lessons despite intermittent internet connection	3.51	Agree
I can still cope in online classes despite of noise in my place	3.33	Neutral
I can conduct my research on new software and/or its development	3.24	Neutral
Grand Weighted Mean	3.45	Neutral

The suspension of face-to-face classes in the Philippines in March 2020 has been challenging for school administrators and teachers. The shift from the traditional classroom to the online classroom requires technical training from the teachers.

The students, on the other hand, as digital natives, are not so challenged by this sudden shift. Their only problem is internet service availability and quality in their locality. As shown in the data above, the overall weighted mean of 3.45, described as Neutral, means that there is no drastic change or adjustment on the part of the students. Using the internet to communicate and learn is no longer new to them. According to [9], "…adaptability is an important personal resource that can help students in their online learning, including through periods of remote instruction, such as during COVID-19."

The following table shows the respondents' perceptions of the importance of Negotiation Skills.

Table 4 – Perceptions of the Respondents on Negotiation Skills

Negotiation	Weighted Score	Verbal Description
I interact and make friends with my classmates during the online class lecture and lab	3.39	Neutral
I apologised to my group when I made mistakes in our online activities	3.95	Agree
I help and teach my classmates who are having difficulties with online activities	3.83	Agree
I appreciate and congratulate the members of my group when the job is done	4.11	Agree

Negotiation	Weighted Score	Verbal Description
I share my online resources with my classmates	3.72	Agree
I encouraged and motivated the members of my group when difficulties came in our online classes and activities	3.83	Agree
I humbly listen and let others share their ideas when solving problems	3.95	Agree
I speak in a friendly manner and make clarifications in case of misunderstanding	4.06	Agree
I create solutions to the problem that is agreeable to my groupmates	3.80	Agree
I make suggestions and advice instead of criticising the inputs of other members of our group	3.83	Agree
Grand Weighted Mean	3.85	Agree

The student-respondents believed that negotiation skills are among the top skills students must possess in online classes and activities, particularly during the pandemic. The skills to collaborate, motivate, and help one another in the team are very much needed during the pandemic. The Filipino value of "pakikipag-kapwa tao" is significant, as reflected in the ratings given by the student respondents in Table 4 above. This implies that teachers must emphasise this skill's importance to all students. The author [10] said, "In striving towards our aim of being transformational teachers, the recent break in our old teaching patterns is an opportunity to upgrade our courses and answer the pre-pandemic call to equip our students to meet the demands of the modern world". This means that school stakeholders should be able to draw on lessons from the pandemic in recognition that modern demands have drastically evolved and will continue to do so.

Table 5 shows the respondents' perceptions regarding the importance of stress management skills.

Table 5 – Perceptions of the Respondents on Stress Management

Stress Management	Weighted Score	Verbal Description
I use time management when studying materials	3.65	Agree
I feel nervous during my time of recitations, quizzes, and exams	3.84	Agree
I do my requirements before the deadline	3.86	Agree
I can organise my time and see that I can comply with the major course requirements.	3.68	Agree
I can manage the pressures of submitting requirements on the same day	3.50	Agree
I am physically drained during online class	3.47	Agree
I can still study despite the intervention of my parents and guardians	3.39	Neutral
I can see and hear the online lessons clearly on my device	3.47	Agree
I am not bored in any of my online classes	3.35	Neutral
I feel confident to handle that my problems will hinder my participation in my online classes	3.33	Neutral
Grand Weighted Mean	3.55	Agree

Stress management is the top 2 skill student-respondents found important during fully online classes, with a grand weighted mean of 3.55, described as "Agree". This means that to most respondents, proper time management is essential to manage stressful conditions in online or virtual classes. Another stressful activity that needs stress management skills is the conduct of quizzes and recitations online. This is incredibly stressful for students living in areas with intermittent internet connections. According to [11], academic factors are the most critical stressors; hence, specific and targeted measures are needed to decrease the burden of stress on students. Teaching techniques and college environments should be adapted to the needs of the students.

CONCLUSIONS

The data above show that BSIT students have the soft skills to survive the pandemic. The top 2 skills needed, especially during the COVID-19 pandemic, are negotiation and stress management.

Considering the salient findings of the study, the researchers recommend the following:

1) enforcement of the negotiation and stress management skills must be made through seminars and/or training;

2) design of classroom and non-classroom activities or programs to reinforce the development or improvement of the personal or soft skills of the students;

3) conduct a comparative study once the student-respondents reach their fourth and final year in College to see how the College shaped their skills;

4) ensure the sustainability of their research by conducting it with every batch of first-year students to improve the student development plan of the College continuously.

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