

Industrial Technology Students' Beliefs on the Impact of Parental Guidance and Support to their Online Learning in the University

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Abstract

The COVID-19 pandemic has abruptly overturned education worldwide, forcing students to adapt to new learning environments. Many young people in today's generation are unable to attend school due to the lack of support and guidance from their families which were affected by this phenomenon. The government has implemented online learning as an alternative to traditional teaching methods, but students are required to be self-responsible for their learning as teachers and schools adapt their methods to suit the safety and health requirements. In addition, economic pressures derived from the pandemic force some students to quit school to help their families. Thus, to assess the impact of parental support on online learning among industrial technology students at Batangas State University JPLPC Malvar, Philippines, this study examines the beliefs of students regarding parental guidance and support in online learning, as well as the impact of such support on their academic performance. A descriptive-quantitative research design was implemented and to further support the study, a flyer or leaflet containing tips on parental guidance and support was developed for students. The study finds that parental guidance and support have a significant impact on students' academic performance, motivation, and confidence towards the online learning system. It highlights the importance of parental involvement in encouraging students to pursue their career and study goals. The findings of this study will be useful to students and future researchers, providing guidance and motivation for them to develop their talents and skills and strive for academic success.

Keywords: *academic performance, online learning, parental guidance, parental support, learning impact, industrial technology students*

1. Introduction

The COVID-19 pandemic brought significant changes in the education sector, prompting governments to adopt new ways of delivering education to students. In response, the government has implemented online and modular learning to continue educating students despite the restrictions imposed throughout the pandemic. However, this new learning modality places a great deal of responsibility on students to be self-directed learners, which can be challenging without the direct support of teachers, instructors, or professors. The situation is especially concerning for underprivileged students or those who lack the resources needed to participate in online learning. Regardless, the students must adjust to the changes and take responsibility for their learning process, just as the teachers adjusted their teaching efforts. By doing so, it can strengthen one's mental and physical capabilities and achieve new levels of personal growth and development (Thomas University, 2020).

To confirm the situation and gather general feedback on the online learning implementation; specifically from the students at Batangas State University JPLPC Malvar, Philippines (BSU), a survey was conducted on how the students can access, connect, and join online classes. It revealed that most students use their mobile phones with data and that only a few have laptops or computers with wifi connectivity; making the students strained, worried, and reluctant. A following survey conducted revealed that students in the university were all satisfied with the teaching delivery modes with minor resolvable concerns. These two surveys indicated that the teachers, instructors, and professors were well-oriented and guided by the new educational reform; thus, the difficulties must be tackled from the side of parental guidance and support on students' online learning. Consequently, this research was conducted to provide insight into the student perspective on how parental involvement affects their academic performance. This study was expected to directly benefit the students while may also provide feedback on the university's adaptation to online learning; which can be used as a reference to improve the teaching and learning process.

In an emerging COVID-19 pandemic, it is deemed it necessary to address what needs can be provided for industrial technology students. The college program aims to successfully practice as engineering technologists for the welfare of the society and demonstrate a high degree of professionalism at all times. As to relevant skills, industrial technology graduates are expected to possess an appropriate mastery of the knowledge, techniques, skills and modern tools of technology; an ability to apply current knowledge and adapt to emerging applications of mathematics, science and technology; an ability to conduct, analyze and interpret experiments and apply experimental results to improve processes; an ability to apply creativity in the design of systems, components or processes appropriate to program objectives; an ability to function effectively on teams; an ability to identify, analyze and solve technical problems; an ability to communicate effectively in writing and in oral presentation; a recognition of the need for and an ability to engage in lifelong learning; an ability to understand professional, ethical and social responsibilities; the knowledge of and respect for diverse backgrounds, contemporary societal and global issues concerning the profession; and a commitment to quality, timeliness and continuous improvement (Batangas State University, 2013).

In this situation, parental involvement has been shown to play a significant role in improving students' academic achievement (Hansen, 2011). Understanding how parental involvement affects student achievement can inform parenting practices and school-based policies, practices, and interventions that involve working with parents. With the current challenges posed by the pandemic, parental support is even more important in helping young people maintain their courage and self-confidence in their academic pursuits. By providing guidance and support, parents can help students navigate through the difficulties of online and modular learning, especially those who are underprivileged or lack resources (Mahaffy, 2014). Studies have highlighted various challenges faced by students during online learning. These challenges include unstable internet connectivity, inadequate learning resources, power interruptions, vague learning contents, overloaded lesson activities, limited teacher scaffolding, poor peer communication, conflict with home responsibilities, poor learning environment, financial difficulties, compromised physical health, and mental health struggles (Rotas & Cahapay, 2020). These challenges underline the need for parental support to help students overcome these obstacles.

A study conducted at the University of the Philippines Los Baños assessed the e-learning readiness of Filipino higher education students during the pandemic. The study revealed that Filipino students demonstrated proficiency in computer and internet skills but lacked control over their learning process. Balancing academic responsibilities with home responsibilities was a significant concern for many students (Inquirer.net, 2021).

The sudden shift to online learning posed challenges for first-year industrial technology students, who were unprepared for the pandemic's impact. It is crucial to explore these students' beliefs regarding the impact of parental guidance and support on their online learning experiences to enhance the accessibility and inclusivity of online learning modalities. The COVID-19 pandemic has necessitated a transition to online learning, creating challenges for students, particularly those who are underprivileged. Parental guidance and support play a vital role in helping students navigate the difficulties of online and modular learning. Striking a balance between support and independence is crucial. By understanding the impact of parental involvement, educational institutions can create more inclusive and accessible online learning environments. Students can develop resilience, adaptability, and achieve personal growth and development through the support of parents and educational institutions during these challenging times.

Hence, it is essential to explore among first year industrial technology students' beliefs on the impact of parental guidance and support to their online learning in the university, since not all universities and colleges in both private and public sectors are well-equipped with the distance education for teaching and learning processes particularly in the Philippines, unlike other countries and nations. Nine majors of the first-year students in Bachelor of Industrial Technology (BIT) were considered in this study since they were expected to be highly unprepared on the emergence of pandemic, unlike other year levels who have already learned some important tips on the approaches and strategies of the university and the teachers. This study excluded other programs because the results of this study may have direct assistance; and may serve as inputs and recommendations to the college or department itself for more inclusive and accessible online learning modality. This study may also provide more insight among those academic and learning institutions that adaptability with the advance technology more likely fill in the gap for teaching and learning most specially for students who are in need or must be given full attention because of their personal situations and other challenges. Since COVID-19 Pandemic shaken the world, learners experience high pressure that caused much stress and worries, along with their responsibilities at home during online learning. Other than the implementing rules and regulations of the university relative to flexible online learning, both synchronous and asynchronous, there was a survey conducted in the university on how students can access, connect, and join the online classes, and it revealed that most students use their mobile phone with data, and that only few have laptops or computers and wifi that made the students found difficulties, worried and reluctant. Another survey conducted among students' satisfaction on the teaching delivery modes also revealed that students in the university were all satisfied, although there were minor concerns that were also being addressed and solved. Since the teachers, instructors and professors were oriented and guided on the new educational reform, this research deemed to explore on how the parental guidance and support impacted the students' online learning.

2. Literature Review

2.1. Challenges in Online Learning

The pandemic has necessitated a worldwide transformation in the education system; leading to significant changes in strategic leadership, management, and the implementation of educational practices. Educational institutions, both public and private, have transitioned to online education, utilising internet connectivity and modular teaching methods to adapt to the crisis (Fabriz et al., 2021); providing flexible teaching and learning opportunities through various synchronous and asynchronous formats (Fabriz et al., 2021). The integration of technology, access to resources, and internet connectivity has facilitated online credit recovery programs which enhance educational opportunities for students (Viano, 2023). Other elements of technology-integrated education or smart education; including smart classrooms, smart environments, and smart campuses, have also been instrumental in supporting online learning. Additionally, collaborative online international learning experiences have provided opportunities for global collaboration and networking, although challenges related to equity and contribution have been identified (Aquino et al. 2023). In other words, the pandemic indirectly sped up the evolution process of the education system.

However, it is important to minimise challenges and maximise the advantages of online education (Aquino et al., 2023). The sudden total shift to online instruction during the pandemic has observed a decline in children's learning motivation and cognitive abilities (Lase et al., 2022). The situation posed challenges for educators to increase focus on students' socio-emotional issues instead of observational data; whereby students facing anxiety and social isolation benefited from instructors who prioritise their emotional well-being (Usher & Hershkovitz, 2023). Additionally, educational games have proven effective in enhancing student motivation and engagement, providing a platform for collaborative learning (Moffett & Cassidy, 2023). In comparing instructional approaches, Presley et al. (2023) compared synchronous and asynchronous instructional modes, finding no significant differences in student knowledge or social presence. However, asynchronous delivery resulted in higher ratings of cognitive presence. Another study emphasized the importance of teaching presence in establishing effective online interactions, including video lectures, discussions, and timely feedback (Watson et al., 2023). Flipped classrooms, combining virtual materials and synchronous interactions, were found to have a significant impact on student learning outcomes (Ruiz-Palmero et al., 2023). A study conducted at the University of the Philippines Los Baños to assess the e-learning readiness of Filipino higher education students during the pandemic revealed that while the students were proficient in computer and internet skills, they lacked control over their learning process. Studies also highlighted that challenges faced by

students during online learning include unstable internet connectivity, inadequate learning resources, power interruptions, vague learning contents, overloaded lesson activities, limited teacher scaffolding, poor peer communication, conflict with home responsibilities, poor learning environment, financial difficulties, compromised physical health, and mental health struggles (Rotas & Cahapay, 2020).

Challenges in learning may also be influenced by the sex factor. Tannenbaum et al. (2016) highlighted that routinely considering sex or gender in research implementation is important in multiple aspects. The two factors are important in effective decision-making, communication, stakeholder engagement, and preferences for the uptake of interventions; potentially strengthen both the practice and science of implementation, improve health outcomes, and reduce gender inequities. This view was in line with Bugler et al. (2005)'s who revealed that females have higher motivation levels and better adaptation. In the same manner, Ghazvini and Khajepour (2011) found that female students showed more internal locus of control in academic performance than male students. However, the study of Tsaousis and Alghamdi (2022) contradicted this by proposing no differences in academic self-concept as a function of gender. Another was that boys use learning strategies to a lesser degree than female students and that females take greater responsibility for their academic failures.

2.2. Parental Academic Involvement and Expectations

Essentially, parental involvement and support play an important role in their children's academic success, either face-to-face or online (Hansen, 2011). The impact of parental guidance can have far-reaching effects on their daily lives, especially for university students. Moneva and Gonzaga (2020) asserted that parental motivation fosters positive behaviour and interest in learning, benefiting students' abilities and engagement. Fan and Chen (2001) similarly emphasised that parental involvement positively influenced academic achievement. Shao et al. (2022) stated that there are varying degrees and many opportunities for parents to play a role in children's learning. According to them, there are basic obligations of parental education: communication between school and family; parental involvement in the school; and parents' involvement in family learning activities. The study implied that when parents pay more attention to tutoring their children throughout the process of online learning and to their children's mental health, their role was strengthened in parental instruction and encouragement.

Motivation, self-efficacy, and student engagement were found to be positively associated with each other in online learning environments; and parents can enhance these factors through their support. Regardless, The United Theory of Acceptance and Use of Technology (UTAUT) model highlights voluntariness and facilitating conditions in ensuring the successful adoption of online learning (Tuckel & Pok-Carabalona, 2023), indicating the vitality of balancing support and independence. The interpretation of "parental involvement" also varies; particularly in the Asian culture. Encouragement, praise, interest, and involvement contribute to intrinsic motivation and mastery goal orientation (Ho, 2009). Furthermore, students' beliefs demonstrate that parental involvement positively impacts motivation and academic performance. When parents are actively involved, students exhibit increased interest, personal responsibility, task-seeking behaviour, perseverance through challenges, and higher self-efficacy.

The guidance and support from parents can help students navigate through the difficulties of online and modular learning, especially those who are underprivileged or lack resources (Mahaffy, 2014). Heavier support which requires the efforts of both parents is also crucial for students with disabilities; emphasised by Adigun and Mosia (2023) who found that father involvement in the education of deaf and hard-of-hearing children increased during the pandemic. More involvement is also especially crucial for first-year students, who were barely adept at learning skills specific to the program before the pandemic. This notion is supported by the findings from Tuckel and Pok-Carabalona (2023) that younger students and those in stressful environments expressed lower satisfaction with emergency remote instruction, indicating that they need more support from their parents compared to older students. Regardless, it is worth noting that the study by Momanyi et al. (2015) established that students' age had a significant effect on the student's academic performance but no significant effect on academic motivation.

Unfortunately, Lase et al. (2022) noted that distance learning also placed additional burdens on parents economically, psychologically, and socially; which includes providing internet access, assisting with learning materials, and participating in assignments or tests to support children's learning. This has resulted in reduced

parental involvement and support at home due to time constraints and parents' inability to fulfil teaching roles. Additionally, the availability of teaching and learning resources should be considered to understand students' performance in online classes. According to (Ram Gopal et al., 2021) students' satisfaction and academic performance in online learning can also be associated with instructor quality, course design, prompt feedback, and student expectations. Therefore, regular contact between students and faculty is essential to understand their home circumstances (Bedi, 2023). In this case, instructional designers play a fundamental role to support the faculty and maintain an excellent quality of the educational system by providing room for parental involvement in the courses (McDonald, 2023).

Understanding how parental involvement affects student achievement can inform parenting practices and school-based policies, practices, and interventions that involve working with parents. A successful effort may contribute to the students sustaining their courage and self-confidence in their academic pursuits while supporting educational institutions to create more inclusive and accessible online learning environments.

2.3. Research Objectives

Based on the pressing issue, the study significantly aimed to assess the industrial technology students' beliefs on the impact of parental guidance and support on their online learning at BSU, the national engineering university of the Philippines. Specifically, the study aimed to describe the profile of the respondents as to sex and age, and assess the relationship between the profile to i) the beliefs of the respondents on parental guidance and support in online learning at the university; and ii) the impact of parental guidance and support to the respondents' online learning in the university. The results are used to develop a leaflet containing tips on how parents can provide effective guidance and support to their children in the university.

3. Research Method

3.1. Research Design and Research Hypotheses

This study employs a descriptive-quantitative research design aiming to assess the impact of parental guidance and support on online learning among industrial technology students at BSU. To have in-depth analyses of the data, this study formulated the hypotheses and tested them through a null hypothesised model: (H₀₁) There is no significant association between the respondents' profile (sex and age) and their beliefs on parental guidance and support in online learning in the university; (H₀₂) There is no significant association between the respondents' profile (sex and age) and their assessment on the impact of parental guidance and support to their online learning in the university; and (H₀₃) Students' beliefs has no significant effect on their assessment on the impact of parental guidance and support to their online learning in the university. The structure of the hypotheses is visualised in Figure 1.

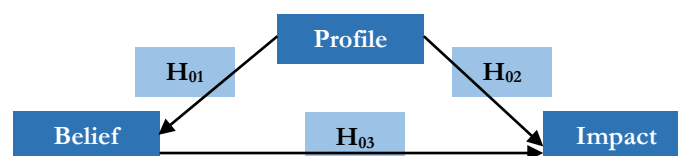


Figure 1. Hypothesised Model

3.2. Sampling method and participants

For the specific objectives and restraints due to the pandemic, this research employed a multi-stage sampling technique. Since younger students may feel more pressure from the sudden shift to online learning (Tuckel & Pok-Carabalona, 2023), the research is focused on first-year students only. They were expected to be highly unprepared for the emergence of the pandemic, unlike other year levels who had already learned important tips on the approaches of the university and the teachers.

Aimed at BSU's first-year students as the target population, the first stage used the convenient sampling method by narrowing the sampling pool to nine majors of first-year students in Bachelor of Industrial Technology (BIT) students only. The results of this study can serve as direct assistance to the students which

can subsequently provide inputs and recommendations to the college or department itself for a more inclusive and accessible online learning modality.

Then, in the second stage, the pool were stratified according to their majors as clusters. For each cluster, the third stage of sampling was employed through the fishbowl method, a type of simple random sampling. The method yielded 90 first-year industrial technology students during the academic year 2020-2021 as the participants, equally distributed for the nine majors. The distribution is displayed in Figure 2.

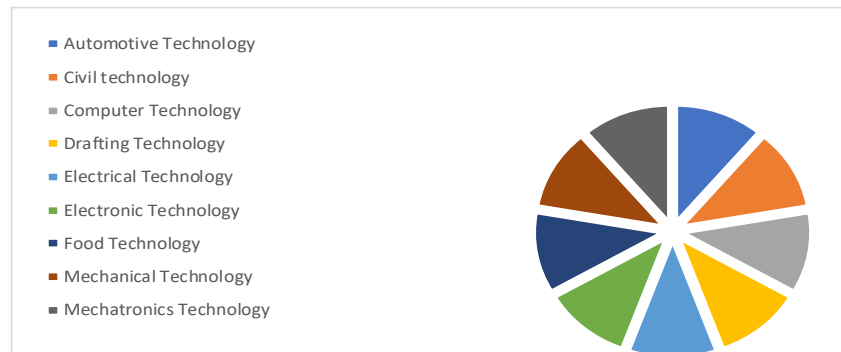


Figure 2. Majoring of the participants

3.3. Instrument

This study utilised a self-made quantitative questionnaire as the instrument; mediated by an online survey web application, Google Form, to collect data. The questionnaire consisted of 30 statements, equally divided into two parts. The first part contained 15 statements assessing the beliefs on parental guidance and support, while the second part contained 15 statements assessing the impact of parental guidance and support on students' online learning. The respondents were required to answer all 30 statements. Before the data was collected, the instrument underwent the content reliability test for its fitness and the Cronbach Alpha test for its consistency. Both parts successfully passed the first test. For the second test, part one of the survey received a 0.87 Cronbach Alpha score while part two scored 0.79; revealing good and acceptable internal consistencies respectively.

3.4. Procedure

To achieve the goals of the study, several steps were taken. Once the topic and title were approved, general and specific objectives were established to provide clarity and direction for the research. After the literature was reviewed for the research, the instrument was developed which was distributed to the sampled respondents from BIT as a Google Forms link. The link was sent to students through a G-suite account registered to the university as well as in Facebook messenger group chats, making the retrieval efficient and successful. Turned-in responses were securely stored and treated as confidential information. During data presentation, analysis, and interpretation, the respondents' identities were made anonymous.

3.5. Data Analysis

This study employed a range of descriptive statistical tools within the Statistical Package for Social Sciences (SPSS) software to analyse the data. The tools included frequency and percentage calculations, ranking, mean calculations, Likert scales, mean ranges, and verbal interpretation. These techniques were used to provide a comprehensive understanding of the data and to identify patterns and trends. After the data was analysed, the findings were further tested to answer the research questions guided by the null hypothesised model. The use of Inferential Statistical Analysis helped to ensure the rigour and validity of the study's findings. Meanwhile, Chi-Square; commonly used to test and measure how a model compares to actual observed data, tested and compared the size of any discrepancies between the expected results and the actual results, given the size of the sample and the number of variables in the relationship. Chi-Square is also used to reject the null hypotheses based on the total number of variables and samples within the experiment (Hayes, 2023). Then, Linear Regression was used to predict the value of an independent variable based on the value of another or dependent variable.

The frequency of data values was determined by calculating the number of times each value occurred within the dataset. This was done by referencing the total number of participants or representatives in the study and expressing the frequency as a percentage of the total. This approach allowed for a clear understanding of the distribution of data and provided valuable insights into the patterns and trends within the dataset. The study was able to draw meaningful conclusions and make informed decisions based on the data. The ranking method is utilised to ascertain the degree or mark of the participants' responses, ranked in descending order from highest to lowest. By ranking the responses in this way, it becomes possible to identify the most common and important patterns within the dataset. This approach can be particularly useful in identifying key areas of focus for further analysis or investigation. By analysing the rankings of participants' responses, the study can gain a more nuanced understanding of the data and develop more accurate insights into the research questions at hand.

The mean is a weighted average of total scores as calculated based on the options and Likert scales indicated in the survey form. It captured the respondent's opinion, attitude, or behaviour while enabling the computation of a weighted average for each question. Then, the Likert scale provided a quantitative measurement of subjective data, which was useful in analysing trends and making informed decisions. Combined, the Likert scales and weighted averages ensured the validity and reliability of the study's findings. This study utilised a four-point scale in both parts of the questionnaire. This scale enabled participants to identify, assess, or determine their opinions, attitudes, or behaviours based on the questions posed. Without a mid-point usually used to indicate a 'neutral' answer as in the typical five-point scale, a four-point scale allowed the study to capture directed responses and provide more nuanced insights into the data. It also ensured that the data collected are consistent and reliable, allowing for more accurate conclusions to be drawn from the results. Thus, a more structured and objective approach to data collection was achieved, which is critical in ensuring the validity and reliability of the study's findings.

The study also employed mean ranges to determine the total mean scores and associated values. The mean range provided a more detailed understanding of the data and allowed for a more nuanced analysis; indirectly strengthening the validity and reliability of the findings. By utilising it, the study identified key patterns and trends within the dataset, which helped to generate the conclusions of the study. Then, the description for each value was included to indicate its essential status or nature concerning the variables under investigation. To assess effectively the impact of parental guidance and support on online learning, both four-point and five-point scales were utilised to score the assessments provided by the respondents. In the scales, a score of (1) denoted the lowest level of impact, while the highest scores of (4) or (5); respective to each scale, indicated the highest level of impact. The scoring system ensured the rigour and validity of the study's findings. Cumulatively, all the tools enabled the study to accurately assess the industrial technology students' beliefs on the impact of parental guidance and support on their online learning in the university, and subsequently draw meaningful conclusions from the data collected.

4. Findings and Discussion

4.1. Profile of the Respondents

Figures 3 and 4 present the profile of the respondents in terms of sex and age.

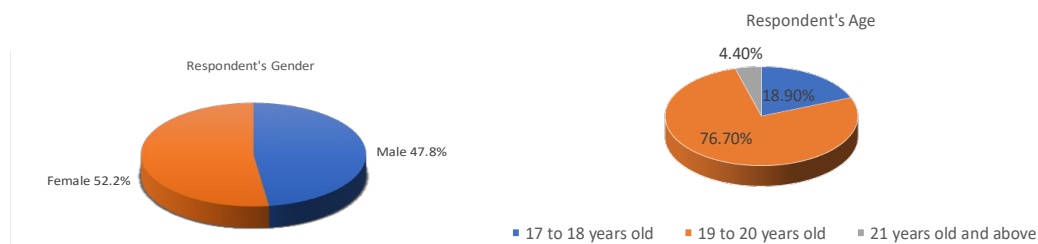


Figure 3. Sex of the respondents

Figure 4. Age of the respondents

Figure 3 shows that female respondents ($f=47, 52.2\%$) are slightly more than males ($f=43, 47.8\%$). While this data indicates that most of the participants were females, the difference can be considered insignificant. Equal

distribution is important to test sex as a factor in influencing the results to ensure the validity of the findings. In terms of age, it can be seen in Figure 4 that the majority of the respondents belong to 19-20 years old ($f=69, 76.70\%$); followed by 17-18 years-olds ($f=17, 18.90\%$) and those 21 years old and above ($f=4, 4.40\%$). The age data makes sense for a first-year population since it is common for students to continue for Bachelor's Degree after finishing one-year or two-year bridging programs instead of directly from high school. The older participants may pursue a second degree, change degree programs, or simply start later than the common practice.

4.2. Summary of scores of the Likert Scale, Mean Range, and Opinion Strength

Deductively, the summarised Likert score, mean ranges, and verbal interpretation of the students' beliefs on parental guidance and support to their online learning in the university are presented in Table 1.

Table 1. Students' beliefs on parental guidance and support to their online learning in the university

Likert Scale	Mean Range	Verbal Interpretation
4	3.50-4.00	Strongly agree
3	2.50-3.49	Agree
2	1.50-2.49	Disagree
1	0.00-1.49	Strongly Disagree

Meanwhile, Table 2 below presented the scores for the impact of parental guidance and support on students' online learning as rated by the respondents.

Table 2. Impact of parental guidance and support on students' online learning

Likert Scale	Mean Range	Verbal Interpretation
5	4.20-5.00	Always
4	3.40-4.19	Often
3	2.60-3.39	Sometimes
2	1.80-2.59	Seldom
1	1.00-1.79	Never

4.3. Beliefs on Parental Guidance and Support in Online Learning in the University Profile of the Respondents

Table 3 below presents the mean, verbal interpretation, and rank for the first part of the questionnaire. Parental guidance and support refer to how the parents or guardians guide and support the students.

Table 3. Beliefs on Parental Guidance and Support in Online Learning at the University

Beliefs	Mean $n=90$	Verbal Interpretation	Rank
1. Motivation from parents can encourage their son/daughter's self-confidence.	3.6	Strongly Agree	1
2. Motivation from parents can create an open atmosphere where their son/daughter feels comfortable expressing his likes, dislikes, or concerns in choosing their career.	3.5	Strongly Agree	5.5
3. Motivation from parents can help their son/daughter to discover their pure talent and skills.	3.5	Strongly Agree	5.5
4. Motivation from parents can help their son/daughter to become a positive thinker.	3.49	Agree	8.5
5. Motivation from parents can encourage their son/daughter's participation in class.	3.5	Strongly Agree	5.5
6. Parents guide and support their son/daughter to become hardworking and determined.	3.43	Agree	11
7. Parents show and support their son/daughter to be a good role model in school.	3.53	Strongly Agree	3

Beliefs	Mean <i>n</i> =90	Verbal Interpretation	Rank
8. Parents lead and support their son/daughter to pray at all times.	3.5	Strongly Agree	5.5
9. Parents advise and support their son/daughter to finish their studies.	3.54	Strongly Agree	2
10. Parents advise and support their son/daughter to be productive and creative in school.	3.48	Agree	10
11. Parents reprimand the son/daughter if they do silly things.	3.28	Agree	14
12. Parents give their son/daughter rules to obey and follow.	3.29	Agree	13
13. Parents confront their son/daughter when something is done wrong.	3.11	Agree	15
14. Parents inform their son/daughter of right or wrong.	3.49	Agree	8.5
15. Parents set schedules for their son/daughter to be prompt and organised.	3.3	Agree	12
Composite Mean	3.44	Agree	

The results presented in Table 1 indicate that the participants strongly agree that parental motivation encourages self-confidence (*mean*=3.6), inspires them to finish their studies (*mean*=3.54), and serves as a role model (*mean*=3.53). Additionally, they agree that parental motivation fosters an open atmosphere for expressing career preferences (*mean*=3.5), helps discover talents and skills (*mean*=3.5), encourages class participation (*mean*=3.5), instils positive thinking (*mean*=3.49), and provides moral guidance (*mean*=3.49). Subsequently, although ranked lower in importance, the participants agree that parents confront them when they err (*mean*=3.11), reprimand them for silly behaviour (*mean*=3.28), set rules to be followed (*mean*=3.29), establish schedules for promptness and organisation (*mean*=3.3), and guide them to be hardworking and determined (*mean*=3.43). Overall, the study reveals that students recognise the significant role of parents in motivating, guiding, supporting, and disciplining them. These findings highlight the significance of parental involvement and support in students' academic activities both at home and at the university as mentioned by Ho (2009).

Table 4 summarised the computation to challenge the first null hypothesis, H_{01} that there is no significant association between the respondents' profile (sex and age) and their beliefs about parental guidance and support in online learning at the university.

Table 4. Students' Profile, Beliefs, and Assessment on the Impact of Parental Guidance and Support

χ^2 -value		<i>p</i> -value	Decision on H_{01}	Interpretation
Students' Beliefs				
Sex	.247	.619	Failed to Reject	Not Significant
Age	5.008	.025	Reject	Significant
Assessment on Impact				
Sex	.229	.632	Failed to Reject	Not Significant
Age	.164	.686	Failed to Reject	Not Significant

Based on the test and computed null hypothesised model, (*sex*: χ^2 -value of .247 is lesser than the *p*-value of .619) the study failed to reject H_{01} on the association between the respondents' sex and their beliefs on parental guidance and support in online learning in the university. This explains that the sex of students has no association or effect on their beliefs about parental guidance and support for their online learning at the university. In addition, there is no difference between how males and females perceive things about online learning during the pandemic, contradicting the notion by Tannenbaum et al. (2016). Both males and females feel the essence of motivation, guidance, and support, as well as a set of discipline at home that reflects their unique attitudes and behaviour in school activities, learning tasks and performance; which validated the notion of Tsaousis and Alghamdi (2022) as in the literature review.

However, the study (*age: χ^2 -value of 5.008 is greater than the p-value of .025*) successfully rejected H_{01} as the association between the respondents' age and their beliefs on parental guidance and support in online learning in the university is significant. It means that as students mature, they become more aware of what is happening in their surroundings. They become more motivated when they feel guidance and support from their parents in addition to being disciplined at home which also reflects on their perception of school activities. Thus, only the students' age has a significant association with their assessment of the impact of parental guidance and support on their online learning at the university; confirming the literature from Tuckel and Pok-Carabalona (2023), who mentioned that younger students were more stressed during the emergency remote learning.

4.4. Impact of Parental Guidance and Support on Students' Online Learning

Table 5 portrays the summarised results for mean, verbal interpretation and rank of the impact of parental guidance and support on students' online learning from the second part of the questionnaire. From the table, the respondents were found to consistently believe that parental guidance and support positively contribute to their creativity and productivity in school projects and assignments (mean=5.00). They also perceived increased diligence and patience (mean=4.96), awareness of right and wrong (mean=4.92), avoidance of silly mistakes (mean=4.91), and completion of studies for future improvement (mean=4.41). Then, although ranked lower, the participants believe that parental guidance leads to their active participation in school activities (mean=4.27). This involvement helps students become good role models, adhere to rules, avoid wrongdoing, manage schedules, and nurture talents (mean=4.3).

The overall result of the study (mean=4.54) reveals that students strongly believe in the significant impact of parental guidance and support on their academic success, motivation, creativity, and productivity during the online learning duration. Parental involvement was proved to positively influence students' behaviour, adherence to rules, and participation in both academic and non-academic activities. Furthermore, parental guidance is deduced to be crucial for students' satisfaction and performance in online learning, especially in the context of the pandemic. This indicates that collaborative efforts between teachers and parents can significantly improve students' academic performance and well-being. These findings confirmed the studies by Tuckel and Pok-Carabalona (2023), Ho (2009), and (Mahaffy, 2014) as discussed in the literature review.

Table 5. Impact of Parental Guidance and Support on Students' Online Learning

Impact	Mean <i>n=90</i>	Verbal Interpretation	Rank
<i>Parental Guidance and Support can ...</i>			
1. <i>boost my confidence</i> in performing my schoolwork and household chores	4.4	Always	6.5
2. <i>help me to express my likes, dislike, or concern</i> in choosing my career in life	4.33	Always	8
3. <i>unleash my pure talents and skills</i> in performing in different sports	4.3	Always	12
4. <i>make me a positive thinker</i> in every situation that happens	4.4	Always	6.5
5. <i>build me to be fully participating</i> in performing my school activities and schoolwork	4.27	Always	15
6. <i>help me to be more hardworking and patient</i> in doing my school projects and assignments	4.96	Always	2
7. <i>teach me to be a good role model</i> in performing my schoolwork	4.3	Always	12
8. <i>remind me to pray</i> at all times to have the power to resolve my problems	4.32	Always	9
9. <i>help me to finish my studies</i> for me to become better in the future	4.41	Always	5
10. <i>make me creative and productive</i> in doing my school projects and assignments	5	Always	1
11. <i>teach me not to do silly things</i> in doing school projects and household chores.	4.91	Always	4
12. <i>help me to follow the rules</i> for me to avoid being scolded by my parents.	4.3	Always	12
13. <i>remind me not to do something wrong</i> to avoid consequences	4.3	Always	12
14. <i>teach me not to forget what is right and wrong</i> in doing something in school or the house	4.92	Always	3
15. <i>help me to organise my schedule</i> so that I will not be confused between prioritising schoolwork and household chores	4.3	Always	12
Composite Mean	4.54	Always	

The results as shown in Table 5 were further tested to challenge the second null hypothesis, H_{02} , that there is no significant association between the respondents' profile (sex and age) and their assessment of the impact of parental guidance and support on their online learning at the university. The result is displayed in Table 6 below.

Table 6. Students' Beliefs and Their Assessment on the Impact of Parental Guidance and Support

Model	Unstandardized Coefficients		t-value	p-value	Interpretation
	Beta	SE			
(Constant)	4.397	.238	18.507	<.001	Significant
Students' Beliefs	.002	.071	.031	.975	Not Significant

R=.003 (Very Weak Relationship); p = .975 (Not Significant)

As shown in Table 6, the test computed the null hypothesised model with the formula *sex*: χ^2 -value of .229 is lesser than the p-value of .632 and indicated that the study failed to reject H_{02} for the sex factor. Similarly, the study failed to reject H_{02} for the age factor (*age*: χ^2 -value of .164 is lesser than the p-value of .686). The results showed that there is no significant association between the respondents' age or sex and their assessment of the impact of parental guidance and support in online learning at the university. While the finding may seem to contradict the studies by Tuckel and Pok-Carabalona (2023) who highlighted the relationship between age and adaptability, it may ascertain the notion by Momanyi et al. (2015) that while age affects performance, it does not impact student's motivation. Thus, it is presumed that external factors were present that affect the participants' ideas, feelings, and attitudes, leading to the resulting behaviour.

The final null hypothesis, H_{03} , stated that students' beliefs have no significant effect on their assessment of the impact of parental guidance and support on their online learning at the university. Based on the results of previous tests with the null hypothesised model, the study accepted the H_{03} . It was discovered that students' beliefs have no significant effect on their assessment of the impact of parental guidance and support on their online learning at the university (*Beta*= .002, *SE*=.071; *t-value*= .031, *p-value*= .975). The result also showed that there may be other factors of great value that have a significant effect on the student's assessment of the impact of parental guidance and support on their online learning in the university (*Beta*= 4.397, *SE*=.238; *t-value*= 18.507, *p-value*= <.001).



Figure 5. Corrected Model

From all three tested null hypotheses, a corrected model of the relationship between the descriptive profile of students with their beliefs on parental involvement is visualised in Figure 5. As shown in the figure, age is deduced to have a direct impact on the beliefs of the students, whereby while older students require less direct parental support, they highly recognise the impact on their well-being and online learning experience.

4.5. Recommendation

This focus can increase more inclusive and comprehensive student satisfaction and experience. For the involved students, a seminar should be organised to educate parents about the benefits of providing guidance and support. Individual evaluations of students to identify specific problems can help in producing relevant and helpful content or solutions during the seminar. The Office for Research Development and Extension Services (ORDES) can initiate this seminar in collaboration with an external partnering agency or local government unit (LGU) to avoid adding more burden to the university's instructors. The theme of the seminar is suggested as "Parents-Community-School Partnership and Involvement: Bridging the Gaps for Students' Academic Success and Well-being."

Furthermore, a partnership program should be established to promote family and community involvement in various topics, such as parenting, learning at home, communication, volunteering, decision-making, and community collaboration, while noting that trust and respect between the home, school, and community are essential. Training programs should be provided to volunteers/extensionists to ensure effective assistance. The

university must strive to involve all parents, create a welcoming atmosphere, maintain positive interactions, and establish regular communication with families. Then, to promote initiatives from parents to regularly monitor their children's academic progress and provide support in moral and physical aspects, a flyer or leaflet with tips on parental guidance and support should be developed and distributed during the planned programs. Additionally, the study suggests conducting an impact assessment of sustainable development goals in the future to ensure continuous improvement of the process by consistently assessing client satisfaction and feedback to make necessary improvements.

5. Conclusion

The study concludes that parental guidance significantly enhances students' academic performance, motivation, and confidence in online learning; especially younger students. When students are inspired and motivated by their parents, they become more productive and creative, actively participating in assigned tasks. Therefore, parental support, along with effective online pedagogy and student-faculty engagement, plays a vital role in student achievement during challenging times. Learning institutions are expected to conduct enrichment programs to promote parental involvement and observe increased student success, enhanced parent and teacher satisfaction, and improved academic institutions climate.

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