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Students' Computer Value Belief and Perceived Parental Support among VSU-Isabel Students during COVID-19 Online Classes

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Abstract

The sudden shift to online learning brought about by the COVID-19 pandemic posed significant challenges for tertiary students, particularly in developing regions like the Philippines. This study sought to examine how students' computer value beliefs (CVB)—their perceived importance of computer use in education—are associated with their perceived parental support (PPS) during online classes. Specifically, it addressed the problem of limited understanding of how parental support influences students' valuation of technology for learning amid crisis-driven educational changes. Using a correlational research design, data were collected from 687 college students at VSU-Isabel through a structured online questionnaire featuring validated Likert-scale items on CVB and PPS. While convenience sampling was necessary due to health restrictions, it also limits the generalizability of findings. Descriptive results indicated that students generally recognized the value of computers in their education, although their perceptions of parental support varied. A statistically significant moderate positive correlation was found between CVB and PPS ($r = .506$, $p < .01$), indicating that stronger parental support is associated with a higher student appreciation of technology in learning. The study's findings highlight the need for institutional efforts to foster parental involvement—such as virtual orientation sessions or support networks—which may enhance student motivation, engagement, and overall academic success in increasingly digital learning environments.

Keywords: Perceived Parental Support, Computer Value Belief, VSU Isabel

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1. Introduction

The COVID-19 pandemic drastically altered the educational landscape in the Philippines. In an effort to mitigate health risks while continuing instruction, the Commission on Higher Education (CHED) encouraged institutions to shift to flexible and online learning modalities. This abrupt transition, known as the "new normal," challenged both students and educators, especially in rural and semi-urban areas like Isabel, Leyte. Visayas State University (VSU) – Isabel, a satellite campus of one of the country's leading state universities, serves a diverse student population, many of whom come from low- to middle-income households. The campus is situated in a coastal municipality where access to high-speed internet and digital learning tools is limited for many students. These contextual realities shaped how students adapted to online education and highlighted the critical role of parental involvement in supporting this transition.

Several factors influence students' learning experiences in this environment, including the motivational influence of their families. Parental support, whether emotional, financial, or logistical, can serve as a buffer against the stress and challenges brought by remote learning. In this context,

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one of the notable factors influencing students' educational experiences is their perceived parental support, which plays a pivotal role in shaping their computer value beliefs (CVB). CVB refers to students' beliefs about the usefulness and importance of computers in their education, which are essentitheal for thriving in an ICT-integrated learning environment.

Students are increasingly integrating Information and Communication Technology (ICT) into their educational journeys, signaling a shift to a technology-based approach that leverages advanced learning tools [1]. The integration of ICT has proven to be a valuable asset, with computers becoming indispensable tools in modern education [2]. These technologies have not only enhanced the efficiency of learning but also enabled students to participate in dynamic, interactive, and self-directed educational experiences. Moreover, schools with robust ICT infrastructure often benefit from stronger parental and community support, reinforcing the importance of technological resources and collaborative educational environments [3].

The importance of parental support is further emphasized in the work of Boudreault-Bouchard et al. [4], who explored students' perspectives on parental assistance. Their research confirmed that such support is closely tied to positive mental health outcomes and increased self-confidence. Similarly, Sabatelli and Anderson [5] highlighted the emotional bond between parents and children as essential to healthy development and academic success. However, the absence of parental involvement can often stem from communication gaps or a lack of shared understanding about educational priorities in the digital age.

Given these theoretical and contextual insights, the present study explores the varying perspectives of students at VSU–Isabel regarding their Computer Value Beliefs (CVB) and Perceived Parental Support (PPS). Specifically, it investigates whether a significant relationship exists between these two variables in the context of a post-disaster, resource-limited setting in the Philippines.

This research is significant for several reasons. First, it contributes to a growing body of literature on ICT in education by focusing on a specific, underrepresented population—students in a rural public university during a national health crisis. Second, it uniquely explores the interaction between parental support and computer-related attitudes, an area seldom studied in the Philippine setting. Third, the findings can inform school administrators, policymakers, and families about the vital role parents play in students' digital learning experiences. Unlike previous studies conducted in more affluent or Western contexts, this study foregrounds the challenges and adaptations within a Philippine state university community, offering context-specific insights that can shape more inclusive and equitable educational strategies in the post-pandemic era.

2. Methodology

2.1.Participants

This study utilized convenience sampling to select participants, specifically targeting college students enrolled at VSU–Isabel from first-year to fifth-year levels. A total of 687 students actively responded to an online survey administered via Google Forms. To encourage participation, the survey link was disseminated through various communication channels, including messenger platforms, email, and

text messages. The questionnaire was accessible during the first two weeks of February 2021, and data collection concluded in the third week of the same month.

While convenience sampling facilitated quick and accessible data gathering amid the COVID-19 restrictions, it inherently carries the risk of selection bias, as it may not accurately represent the broader student population. Students with stable internet access or stronger engagement with digital platforms were more likely to participate, potentially excluding those from underserved or less-connected areas.

Table 1. *Respondents' Demographic Profile, n=687*

Demographic Profile	Frequency	%
Sex		
Male	220	32
Female	467	68
Age		
20 & below	302	44
21 to 30	364	53
31 and above	21	3
Year Level		
First year	181	26.3
Second year	179	2.1
Third year	174	25.3
Fourth year	99	14.4
Fifth year	54	7.4
Course		
Bachelor of Elem. Educ	128	18.63
Bachelor of PE	116	16.88
BS Agribusiness	115	16.74
BSED major ENGLISH	58	8.44
BSED major MAPEH	18	2.62
BSED major MATH	46	6.69
BSED major SCIENCE	32	4.65
BS Industrial Eng'g	57	8.29
BS Industrial Tech	39	5.67
BS Mechanical Eng'g	78	11.35

Table 1 presents a view of the demographic profile of the respondents, comprising first- to fifth-year college students from Visayas State University - Isabel during the 2020 - 2021 academic year. The sample was predominantly female, representing 68% of the respondents. Additionally, 53% of the participants were aged between 21 and 30 years.

The distribution of participants in this study across academic programs is as follows: Bachelor of Elementary Education (BEED) comprised 18.63% of the sample, followed by Bachelor of Physical Education (BPED) at 16.88%, and BS in Agribusiness at 16.74%. Meanwhile, BSED majoring in English accounted for 8.44%, Bachelor of Industrial Engineering (BSIE) for 8.29%, and Bachelor of Science in Mechanical Engineering (BSME) for 11.35%. Additionally, Bachelor of Information Technology (BSIT) made up 5.67% of the sample, BSED majoring in Mathematics comprised 6.69%, BSED Majoring in Science accounted for 4.65%, and BSED major MAPEH constituted 2.62%.

2.2.Research Instruments

The study employed a structured questionnaire as its primary data collection tool, comprising three distinct sections: (1) Demographics, (2) Computer Value Beliefs (CVB), and (3) Perceived Parental Support (PPS). The demographic portion gathered essential respondent information such as name (optional), gender, age, student ID number, academic year, and program enrolled. The survey was administered online via Google Forms to ensure accessibility and reach during the COVID-19 pandemic.

The main instrument used was the Survey of Motivational Belief and Social Support (MBSS), which consisted of 17 items covering four domains: Perceived Peer Support, Computer Self-Efficacy Belief, Computer Value Belief, and Perceived Parental Support. This study specifically utilized the CVB and PPS subscales, each comprising five items, rated using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

To establish content validity, the adapted questionnaire was reviewed by three experts in educational technology and psychology, who assessed the items for clarity, relevance, and alignment with the study's objectives. Their suggestions were incorporated to ensure the instrument's appropriateness for the local context.

To determine reliability, a pilot test was conducted with 30 college students from VSU–Isabel who were not part of the main sample. The Cronbach's alpha coefficient was calculated to evaluate internal consistency, resulting in a score of 0.88 for the CVB scale and 0.85 for the PPS scale, indicating high reliability.

The use of structured instruments like the MBSS aligns with validated approaches in educational research. For instance, Vekiri and Chronaki [6] examined gender differences in technology-related beliefs and behaviors, including perceived social support, computer confidence, and value beliefs. Their work reinforces the importance of using theoretically grounded tools when investigating technology integration and student perceptions in educational contexts.

2.3.Data Analysis

The research adopted a quantitative design to examine the association between Computer Value Beliefs (CVB) and Perceived Parental Support (PPS). The study utilized SPSS software for data analysis, which calculated the Pearson correlation coefficient to assess the strength and direction of the relationship between CVB and PPS. Additionally, meanand standard deviation were used to summarize the central tendency and variability of the responses, providing a comprehensive overview of the data.

Furthermore, regression analysis was also employed in this study to investigate whether CVB could predict PPS. This method allowed for a

more detailed exploration of the relationship, beyond just the correlation, by quantifying the extent to which CVB explains the variance in PPS [7]. The results of the regression analysis highlighted the significant predictive role of CVB in shaping perceptions of parental support, thus offering deeper insights into the dynamics between these two variables.

2.4.Limitations of the Study

This study acknowledges several limitations that may have influenced the results. Firstly, the sample size, though substantial, was limited to a specific group of students, which may affect the generalizability of the findings to a broader population. Secondly, the timing of data collection during the COVID-19 pandemic could have shaped students' perceptions, as family routines, learning modalities, and parent-child communication were significantly altered. The shift to online learning may have either increased or reduced parental involvement, depending on household dynamics. Additionally, the study relied on self-reported responses, which may be subject to personal bias or misinterpretation. The exclusive focus on the relationship between Computer Value Beliefs (CVB) and Perceived Parental Support (PPS) also omits other possible influencing factors, such as socioeconomic status, parents' digital literacy, or academic pressures. Future studies are encouraged to use more diverse samples and explore additional variables to enrich understanding of this relationship.

3. Results and Discussions

Table 2. *Degree of Belief in the Value of Computers*

Statements	N	Mean	Standard Deviation	Description
1. Having computer skills is beneficial to me.	687	4.02	0.72	Agree
2. I enjoy using computers, but at times, I find it challenging to stop.	687	3.35	0.87	Undecided
3. Being proficient in computer use matters to me.	687	3.94	0.73	Agree
4. Enhancing my computer skills is a priority for me.	687	4.13	0.72	Agree
5. Future professionals will largely depend on computer expertise.	687	4.13	0.72	Agree
OVERALL	**687**	**3.91**	**0.33**	**Agree**

Scale Interpretation: 4.3–5.0 (Strongly Agree), 3.5–4.2 (Agree), 2.7–3.4 (Neutral/Undecided), 1.9–2.6 (Disagree), 1.0–1.8 (Strongly Disagree).

Table 2 presents the outcomes of a survey administered to students, focusing on their computer value beliefs. The data illustrates an overall mean score of 3.91,

indicating a consensus among students regarding the importance of computers. Notably, statements 4 and 5, which revolve around the significance of enhancing computer skills and the future demand for computer proficiency in professional settings, obtained the highest mean scores of 4.13, reflecting agreement among the respondents. In contrast, statement 2, which assesses the extent of enjoyment experienced during computer-related activities, received the lowest mean score of 3.35, suggesting a degree of uncertainty among students. The findings revealed that the students of VSU-Isabel agreed with the value of computers. These are related to previous studies that explored students' attitudes and beliefs regarding computers, confirming that students tend to recognize the value and importance of computer technology in various educational contexts [8. 9, 10].

Table 3. *The Degree of Perceived Parental Support*

Statements	N	Mean	Standard Deviation	Description
1. My parents support my use of computers.	687	3.25	0.89	Undecided
2. They believe that computer proficiency will benefit my future.	687	3.55	0.93	Agree
3. They have confidence in my ability to excel in computer use.	687	3.51	0.87	Agree
4. They are pleased with my progress in using computers.	687	3.46	0.832	Undecided
5. They actively engage when I work on the computer.	687	3.07	0.96	Undecided
OVERALL	**687**	**3.37**	**0.20**	**Undecided**

Scale Interpretation: 4.3–5.0 (Strongly Agree), 3.5–4.2 (Agree), 2.7–3.4 (Neutral/Undecided), 1.9–2.6 (Disagree), 1.0–1.8 (Strongly Disagree).

Table 3 presents the findings of a survey measuring student respondents' perceptions of parental support. The overall mean score of 3.37 reflects a generally neutral or ambivalent stance among students toward the level of support they perceive from their parents. Among the five survey items, the statement *"My parents think that I can do well at computers"* received the highest mean of 3.51, indicating moderate affirmation that parents believe in their children's abilities. In contrast, the statement *"My parents get involved when I use the computer"* yielded the lowest mean of 3.07, pointing to some level of uncertainty or lack of perceived parental involvement in actual computer use.

This uncertainty may stem from several influencing factors, such as cultural

norms that shape how support is expressed within families. In some cultures, parental involvement is more indirect, such as providing resources or general encouragement, rather than active participation in a child's computer activities. As a result, students may not interpret these forms of support as involvement, leading to ambivalent responses. Additionally, communication gaps between parents and children—particularly regarding expectations, rules, or the value placed on technology use—can contribute to misinterpretations or underestimation of support.

Moreover, generational digital divides may further complicate perceptions. Parents who are less technologically adept may avoid engaging in computer-related activities, not due to disinterest, but due to unfamiliarity or lack of confidence. This reinforces the need to consider not only the quantity of parental involvement, but also the form and clarity of that involvement. These nuances align with prior research emphasizing the multidimensional and context-dependent nature of parental support for technology use [11, 12, 13]. Therefore, while the data points to a generally moderate perception of parental support, deeper exploration is warranted to understand how cultural expectations and communication dynamics shape students' interpretations of that support.

Table 4. *Correlation Between Computer Value Belief and Perceived Parental Support (n = 687)*

	Computer Value Belief	Perceived Parental Support
Computer Value Belief		
Pearson Correlation	1.000	.506*
Sig. (2-tailed)	—	.000
N	687	687
Perceived Parental Support		
Pearson Correlation	.506*	1.000
Sig. (2-tailed)	.000	—
N	687	687

Note. N = 687. **p** < .01 (two-tailed).
***** Correlation is significant at the 0.01 level (2-tailed).

Table 4 above provides an overview of the correlation analysis conducted between the degree of computer value belief and perceived parental support among students at VSU-Isabel. The researcher used a significance level (alpha) of 0.01 and a degree of freedom of 685 to calculate the statistical significance of this link. A critical value from the r-table, precisely 0.079, was referenced. According to established statistical conventions, the null hypothesis will be rejected if Pearson's r surpasses the critical value obtained from the r-table. Conversely, retaining the null hypothesis is appropriate if Pearson's r falls below the r-tabled value.

The analysis of the collected data unveiled a moderately positive correlation, with Pearson's r calculated at 0.506 and $p < 0.00001$, indicating a statistically significant relationship. Furthermore, this correlation is considered moderately strong. Thus, the findings suggest a meaningful and moderately robust association exists between the degree of computer value belief and perceived

parental support among the student population at VSU-Isabel. These findings align with previous research, emphasizing the interconnectedness of computer value beliefs and perceived parental support in influencing students' attitudes and behaviors [10, 12].

Table 5. *Regression Analysis*

Variables	Unstandardized Coefficients (B)	Standardized Coefficients (β)	t-value	Sig. (p-value)	R^2
Constant	1.52	-	13.45	.000	
Computer Value Belief (CVB)	0.45	0.506	12.85	.000	0.256

Table 5 reveals that 25.6% of the variance in Perceived Parental Support (PPS) can be explained by Computer Value Beliefs (CVB), as indicated by an R^2 value of 0.256. This suggests that students' beliefs about the value of computers play a significant role in shaping how they perceive their parents' support. The statistical significance of this relationship is confirmed by the p-value of 0.000, indicating that the association between Computer Value Beliefs and Perceived Parental Support is highly significant at the 0.01 level. Furthermore, the unstandardized coefficient (B) of 0.45 implies that for each 1-unit increase in Computer Value Beliefs, the Perceived Parental Support increases by 0.45 units. The standardized coefficient (β) of 0.506 further highlights a moderate positive relationship, suggesting that higher Computer Value Beliefs correlate with stronger perceptions of parental support regarding computer use.

These results suggest that students who place a higher value on computer proficiency tend to report greater support from their parents in terms of their use of computers. However, since 25.6% of the variance is explained by Computer Value Beliefs, it is clear that other factors not considered in this analysis may also contribute to the perception of parental support. Given the statistical significance of the findings, it can be concluded that there is a meaningful association between students' Computer Value Beliefs and their Perceived Parental Support. Future research may benefit from exploring additional variables, such as social influences or academic performance, to further enrich the understanding of this relationship.

4. Conclusions

This study provides critical insights into students' perceptions of computer value beliefs (CVB) and perceived parental support (PPS), offering timely contributions to education both during and after the COVID-19 pandemic. Amid the shift to technology-driven learning, the findings reveal that students from VSU-Isabel demonstrate an ambivalent stance toward parental support, with a mean score of 3.37. This ambivalence may stem from communication gaps, generational differences in technology use, or pandemic-induced stressors that disrupted traditional parental engagement. Conversely, students reported a high appreciation for the value of

computers, reinforcing their readiness to embrace digital learning tools and echoing earlier studies [12, 14].

A statistically significant moderate correlation ($r = 0.506$, $p < 0.01$) between CVB and PPS highlights the influential role of parental support in shaping students' attitudes toward technology. This correlation underscores the importance of fostering home-school collaboration in digital literacy development.

To enhance real-world applicability, it is recommended that educational institutions organize parent-oriented webinars, open forums, or hands-on technology orientations to bridge the gap between home support and digital learning demands. Parents should be encouraged to take an active role in their children's technology use by offering guidance, creating open lines of communication, and participating in school-initiated tech activities. Simultaneously, schools should integrate practical computer tasks—such as word processing, spreadsheet creation, and internet-based research—into the curriculum to ensure students gain relevant digital skills.

This research contributes to the broader understanding of student-technology dynamics in the post-pandemic era, emphasizing the need for inclusive, family-based strategies in technology education. However, limitations such as the geographically confined sample (VSU-Isabel students) and the timing of data collection during COVID-19 may restrict the generalizability of the findings. Future studies should consider a more diverse respondent base and longitudinal approaches to assess how PPS and CVB evolve over time.

Finally, this study reinforces the need to strengthen parental involvement and institutional support to cultivate positive student engagement with technology—an essential component of 21st-century learning.

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