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Hybrid Flexible (Hyflex) Learning toward Students' Academic Resiliency and Engagement in Physical Education

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This study explores the impact of Hybrid Flexible Learning (Hyflex) on students' academic resilience and engagement in Physical Education. The researcher utilized a descriptive correlational design to examine the data and characteristics of 480 randomly selected first-year and second-year tertiary students at Laguna State Polytechnic University, San Pablo City Campus. The results indicate that the respondents' perception of Hybrid Flexible Learning in Physical Education, with regard to accessibility, equivalency, learners' choice, and reusability, falls within the "moderately evident" range. The respondents' level of Academic Resilience, including adaptive help-seeking, emotional response, and perseverance, is deemed "moderately resilient." Furthermore, the respondents' level of Academic Engagement, encompassing affective, behavioral, and cognitive aspects, is interpreted as "moderately engaged." The correlation between Hybrid Flexible (HyFlex) Learning and Academic Resiliency has been determined to be of significant importance. Similarly, the connection between Hybrid Flexible Learning (HyFlex) and Academic Engagement has also been established as significant. Consequently, the previous hypothesis suggesting that Hybrid Flexible (HyFlex) Learning does not have a significant impact on students' academic resilience and engagement has been disproved. Based on these findings, it is recommended that seminars and training sessions focused on Hybrid Flexible (HyFlex) Learning in Physical Education be organized by program coordinators. Additionally, it is advised that instructors develop adaptive strategies to effectively adapt to and capitalize on changes in the learning environment.

Keywords: academic resilience, academic engagement, hybrid flexible learning, physical education

INTRODUCTION

The outbreak of COVID-19 has prompted a reassessment of fundamental beliefs regarding education and higher education (Ashour et al., 2021; Jandric et al., 2020; Peters et al., 2020). It is increasingly agreed upon that a return to the way things were before the pandemic may not be desirable (Roy 2020), despite the existence of numerous conflicting plans for the future of higher education. The current state of affairs, characterized by a lack of planning and numerous challenges faced by students, teachers, and educational administrators, reflects a readiness to experiment with new approaches and capitalize on previously overlooked learning opportunities.

The Laguna State Polytechnic University (LSPU) is collaborating closely with the government to address the significant impact of COVID-19 on the education sector. The institution has conducted various studies in alignment with the directives from the Commission on Higher Education to evaluate the students' circumstances regarding the possible implementation of alternative learning methods. Emergency remote teaching, as defined by Hodges et al. (2020), involves a temporary shift prompted

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by unforeseen situations. Its primary goal is to offer reliable, swift, and lasting access to educational instruction and its associated benefits, as highlighted by Mohemmed et al. (2020). Due to limited resources, such as time, the majority of classes have been conducted synchronously without advanced preparation of online materials, as outlined by Manfuso (2020).

In the post-pandemic era, an increased adoption of digital tools for educational services and communication is likely to be the standard practice. The current situation has prompted a reevaluation of longstanding beliefs about the responsibilities of higher education institutions in providing top-notch education, modes of delivery, inclusivity, the importance of continuous learning, and educators' understanding of diverse student needs.

In modern society, there exists a significant issue known as "digital inequality." Not all students and educators have equal access to high-speed internet and associated technology outside of their educational institutions. Academic stress is a form of emotional distress that arises from the fear of failing academically or not being aware of the possibility of failure. Students are faced with various academic responsibilities such as school exams, answering questions, and showing progress in their studies. The pressure to understand the material being taught, compete with peers, and meet the expectations of teachers and parents can be overwhelming (Lal, 2014). However, the resources available to students may not always be sufficient to support these demands, leading to feelings of stress as academic goals become harder to achieve.

METHOD

Research Design

This study used a descriptive correlation survey to determine the respondents' perceptions of Hybrid Flexible learning (HyFlex) and the relationship between student academic resilience and engagement. (Aritichea, 2005) The descriptive research method is a fact-finding study with adequate and accurate interpretation of findings to describe what it is. It emphasizes current conditions, practices, situations, or phenomena. The descriptive research method was employed to gather necessary data and reliable sources of information. A descriptive correlation method helps to determine if two or more variables are associated with each other by explaining their relationship but only necessarily implying that this relationship is also a cause. A descriptive correlation design is almost similar, which uses existing mutual relationships between data to describe it but does not endeavor to establish whether these are statistically significant correlations.

Population and Sampling Procedure

The population for this study was chosen by random sampling that consists of two hundred forty (240) first-year students and two hundred forty (240) second-year students at Laguna State Polytechnic University San Pablo City Campus, Second Semester of the Academic year 2022-2023.

Data Gathering Procedure

To achieve the desired output, the researcher asked permission from the Deans/Associate Deans before administering the questionnaire. Upon approval, the researcher produced the questionnaire and distributed it to the respondents through Google Forms. The procedures and purposes of the study and the assurance of confidentiality of their answers were indicated on the Google form. The accomplished questionnaire was consolidated, tabulated, and subjected to appropriate statistical analysis.

Research Instrument

The main instrument used in the study was a research-made questionnaire consisting of four parts: Part one was to elicit information on the profile of the respondents (name, age, and course). Part two

was to gather information on Hybrid Flexible Learning. Part three was to elicit information on perceived academic resiliency. Part four was to elicit information on perceived academic engagement. The questionnaire was validated by the teachers who are experts in the field of study.

Statistical Treatment of Data

The researcher used descriptive statistics like frequency, percentage, mean and standard deviation, and Pearson Product Moment Correlation. The frequency count and percentage were used for problem number 1, which deals with the demographic profile of the respondents. The percent and frequency distribution is a display of data that specifies the percentage of observation for each data point and the grouping of data points. It is a particularly useful method of expressing the relative frequency of survey responses and other data. (Lavrakas, 2008) The mean and standard deviation were used for problem number 2, which dealt with how hybrid flexible learning might be perceived as affecting students' academic resiliency and engagement. A single central value can represent the complete collection of figures as typical of all the values in the group. This is how the central tendency is measured using the mean.

The Pearson Product Moment of Correlation was utilized for task number 3, which investigated the connection between hybrid flexible learning and academic resilience and engagement. The Pearson R correlation gives a value between +1 and -1 inclusive and measures the linear correlation (dependency) between two variables, X and Y. It is frequently employed in science to gauge how strongly two variables are linearly dependent. Fulekar (2009)

FINDINGS

Part I. Profile of The Respondents

The common variables gathered in demographic research include age, sex, year level, and course.

Table 1
Distribution of the respondents as to age

Age	Frequency	Percentage
18-20 years old	352	73.33.
21-23 years old	118	24.59
24-26 years ol d	10	2.08
TOTAL	480	100

Table 1 shows the distribution of the respondents as to age. The data reveal that most respondents are between the ages of 18 – 20, with 352 respondents or 73.33% respectively. The lowest number of respondents is from 24 to 26 years old, with only ten respondents or 2.08%. This shows that the respondents of this study are young.

Table 2
Distribution of the respondents as to sex

Sex	Frequency	Percentage
Male	242	50.42
Female	238	49.58
TOTAL	480	100

Table 2 shows the distribution of the respondents as to sex. The data reveal that most of the respondents are male, with 242 respondents, and 50.42% respectively. The number of respondents comes from female is 238, which is 49.58%.

Table 3
Distribution of the respondents as to year level and college/department

	COLLEGE/DEPARTMENT									
Year level	CAS	CBAA	CCS	CCJE	COE	CHMT	CIT	CTE	TOTAL	PERCENTAGE
First year	30	30	30	30	30	30	30	30	240	50
Second year	30	30	30	30	30	30	30	30	240	50
TOTAL	60	60	60	60	60	60	60	60	480	100

Table 3 shows the distribution of the respondents as to year level and college/department. It is evident from the presented data above that there is an equal distribution of the 30 respondents per year level across the eight colleges/departments of the university.

Part Ii: Respondents' Perception of Hybrid Flexible Learning

The elicit information on Hybrid Flexible Learning includes accessibility, equivalency, learners' choice, and reusability.

Table 4
Respondents' perception of hybrid flexible learning in terms of accessibility

İn Hybrid Flexible Learning in Physical Education, it...	Mean	Std. Deviation	Verbal Interpretation
1. Allow me to watch video-sharing sites such as Yputibe and Vimeo	3.42	0.71	Agree (Moderately Evident)
2. Allows me to collect data and information from internet sites.	3.46	0.69	Agree (Moderately Evident)
3. Allows me to admit to video conferencing applications such as Microsoft Word, Power Point, and Excel.	3.51	0.68	Strongly Agree (Strongly Evident)
4. Allows the integration of office productivity tools such as Microsoft Word, Google Meet, and Microsoft Teams.	3.47	0.70	Agree (Moderately Evident)
5. Allows communication using messaging tools such as Gmail, Yahoo Mail, and Messenger.			
OVERALL	4.47	0.69	Agree (Moderately Evident)

Legend: 3.50-4.00 (Strongly Agree/Strongly Evident), 2.50-3.49 (Agree/Moderately Evident), 1.50-2.49 (Disagree/Evident), 1.00-1.49 (Strongly Not Evident)

Table 4 presents the respondents' perception of Hybrid Flexible Learning in Physical Education as to Accessibility. The overall indication of the respondents is "agree (moderately evident)" with mean computation of 3.47. However, it is strongly evident in indicator three that the respondents can admit in video conferencing applications such as Zoom, Google Meet, and Microsoft Teams. As stated in the LSPU Learning Continuity Plan, the university maximizes the availability of the Google platform at the earliest time, so that the transition from a traditional learning setting may be utilized and implemented. Hence, the respondents can utilize an accessible learning management system to attend online classes and to expound their learning. Thus, the responsiveness to the challenges associated with the use of technology, such as the availability of learning tools, stable internet access, and reliable resources are set with institutions leading in the use of online platforms as a primary learning mode/tool. Moreover, Hybrid Flexible Learning in Physical Education offers conveniences to students. According to Watkins and Cho (2018), the change was made feasible by an expanded selection of powerful digital devices that can link from the classroom to the internet and a new generation of students for whom continual connectivity is the norm. Also, MS Office is one of the most widely used software suites globally due to its easy features that allow users to do tasks quickly and easily (Jun and Ohgama, 2016).

Table 5
Respondents' perception of hybrid flexible learning in terms of equivalency

İn Hybrid Flexible Learning in Physical Education...	Mean	Std. Deviation	Verbal Interpretation
1.There are clear rules to treat students fair and equitably.	3.39	0.69	Agree (Moderately Evident)
2.Students are encouraged to take roles in cooperative learning activities regardless of differences.	3.45	0.69	Agree (Moderately Evident)
3.There are rubrics/grading schemes for each activity.	3.43	0.67	Agree (Moderately Evident)
4.There are alternative activities for students with valid considerations.	3.45	0.70	Agree (Moderately Evident)
5.There is a fair chance for all to comply with late activties and other academic responsibilities.	3.49	0.65	Agree (Moderately Evident)
OVERALL	4.47	0.69	Agree (Moderately Evident)

Legend: 3.50-4.00 (Strongly Agree/Strongly Evident), 2.50-3.49 (Agree/Moderately Evident), 1.50-2.49 (Disagree/Evident), 1.00-1.49 (Strongly Not Evident)

The results in Table 5 indicate the respondent's perception of the equivalency of Hybrid Flexible Learning in Physical Education. Generally, the variable has an overall mean of 3.44, verbally interpreted as moderately evident. Considering the challenge of implementing HyFlex learning in Physical Education, the course activity plan stipulates that late activity sheets will be accepted. However, they cannot be awarded the highest possible score. It may also predict that the implementing guidelines on the modified grading policy (OVPAA-MO-004s-2001) of the university will be implemented. As perceived in the table, the respondents have an equal opportunity to ensure that all missed assignments and assessments should be submitted according to certain instructions, particularly in submission dates and expected outcomes. Moreover, HyFlex Learning in Physical Education guarantees equity in all participation modes. In the article "Access and Equity in Online Learning" by Petrulis (2020), the abrupt switch to online education may exacerbate existing disparities. The transition to remote schooling will have a disproportionately negative impact on many children due to the unequal distribution of and access to technology and the potential for a global pandemic for various socioeconomic and ethnic groups. It is vital to consider all the factors affecting students' performance to develop an inclusive pedagogy that promotes fair access to the learning environment.

Table 6
Respondents' perception of hybrid flexible learning in terms of learner's choice

İn Hybrid Flexible Learning in Physical Education, it...	Mean	Std. Deviation	Verbal Interpretation
1. Allows me to choose alternative learning materials such as printed/electronic lectures and video presentations.	3.36	0.72	Agree (Moderately Evident)
2. Allows me to submit classwork on my own time.	3.33	0.79	Agree (Moderately Evident)
3. Allows me to decide whether to attend the class discussions. .	3.20	0.82	Agree (Moderately Evident)
4. Allows me to choose alternative activities approrpiate to my learning capabilities.	3.31	0.75	Agree (Moderately Evident)
5. Allows me to choose learning modalities such as face-to-face or a/synchronous online.	3.34	0.78	Agree (Moderately Evident)
OVERALL	3.31	0.77	Agree (Moderately Evident)

Legend: 3.50-4.00 (Strongly Agree/Strongly Evident), 2.50-3.49 (Agree/Moderately Evident), 1.50-2.49 (Disagree/Evident), 1.00-1.49 (Strongly Not Evident)

As observed in Table 6, indicators are entirely perceived by the respondents as "agree (moderately evident)"; the highest mean indicates that the Hybrid Flexible Learning in Physical Education allows students to choose alternative learning materials such as printed/electronic lectures and video

presentations. It could be interpreted that since physical education is a performance-based assessment, it would be challenging for the students to appreciate the lessons constructed only through printed/electronic modules. It may also imply that students can choose to learn modalities such as face-to-face or synchronous online. This may predict that the on-site schedule of the faculty is not the same as that of the students. Face-to-face classes may be only held for the application of skills depending on the availability of time of students and faculty. In addition, students are allowed to decide whether to attend the class discussions. Students can choose the most convenient modality in full online or HyFlex learning. Moreover, attendance is not considered in the computation of grades to give empathy for students who lack learning devices and are not able to attend in-person classes. Generally, the respondent's perception of Hybrid Flexible Learning in Physical Education as to Learner's Choice has an overall mean of 3.31, interpreted as moderately evident. Therefore, HyFlex Learning in Physical Education as to Learner's Choice is designed to address learners' needs regarding place, pace, process, and learning products. According to Schunk and Zimmerman (1998), self-regulated learning mostly results from the learner's ideas, feelings, techniques, and behaviors to accomplish the goals. Therefore, encouraging self-regulation is essentially the development of agency over the learning process and will enable a learner to acquire the skill of learning how to learn (Taranto and Buchanan, 2020). The performance phase describes the efforts made by the learner to encourage focus and performance throughout the actual learning process. This phase's subprocesses include attentional concentrating, self-instruction, and self-monitoring.

Table 7
Respondents' perception of hybrid flexible learning in terms of reusability

In Hybrid Flexible Learning in Physical Education, the learning materials are...	Mean	Std. Deviation	Verbal Interpretation
1. Designed to guide the student in the lesson throroughly.	3.42	0.68	Agree (Moderately Evident)
2. Organized to follow the rules, principles and elaboration of ideas.	3.42	0.67	Agree (Moderately Evident)
3. Sufficient that enable students to give concrete examples.	3.47	0.63	Agree (Moderately Evident)
4. Designed to make learning experiences more real, accurate and active.	3.40	0.69	Agree (Moderately Evident)
5. Represented in a way that is approapriate to all types of learning modalities.	3.43	0.67	Agree (Moderately Evident)
OVERALL	3.43	0.67	Agree (Moderately Evident)

Legend: 3.50-4.00 (Strongly Agree/Strongly Evident), 2.50-3.49 (Agree/Moderately Evident), 1.50-2.49 (Disagree/Evident), 1.00-1.49 (Strongly Not Evident)

Generally, the respondent's perception of Reusability on Hybrid Flexible Learning in Physical Education has an overall mean of 3.43, verbally interpreted as "agree (moderately evident)." Furthermore, the learning materials in Hybrid Flexible Learning in Physical Education provide adequate, appropriate, and actual learning content to support all forms of participation. Schunk and Zimmerman (1998) claim that the learner's ideas, feelings, strategies, and actions mostly lead to self-regulated learning to achieve objectives. A learner will be able to develop the skill of learning how to learn by promoting self-regulation (Taranto and Buchanan, 2020). This is because promoting self-regulation fundamentally develops agency over the learning process. The learner's initiatives to support concentration and performance throughout the actual learning process are described in the performance phase. The sub-processes of this phase include self-monitoring, self-instruction, and attentional concentration.

Table 8
Summary of respondents' perception of hybrid flexible learning

HYBRID FLEXIBLE LEARNING	Mean	Std. Deviation	Verbal Interpretation
1. Accesibility	3.47	0.68	Agree (Moderately Evident)
2. Equivalency	3.44	0.67	Agree (Moderately Evident)
3. Learners' choice	3.20	0.77	Agree (Moderately Evident)
4. Reusability	3.31	0.67	Agree (Moderately Evident)
OVERALL	3.41	0.70	Agree (Moderately Evident)

Legend: 3.50-4.00 (Strongly Agree/Strongly Evident), 2.50-3.49 (Agree/Moderately Evident), 1.50-2.49 (Disagree/Evident), 1.00-1.49 (Strongly Not Evident)

Table 8 shows the summary table on the respondents' perception of Hybrid Flexible Learning. All variables are interpreted as moderately evident. The variable on accessibility got the highest mean of 4.47. Generally, the respondents' perception of Hybrid Flexible Learning is 3.41. This result can be inferred that the respondents tend to adopt the most accessible and appropriate modality beneficial to them.

Part Iii: Level of Academic Resiliency of The Respondents

The elicited information on Students' Academic Resiliency includes adaptive help-seeking, emotional response, and perseverance.

Table 9
Respondents' level of academic resilience as to adaptive help-seeking

İn Hybrid Fldealing with the academic challenges and distress...	Mean	Std. Deviation	Verbal Interpretation
1.İ ask for academic support from my teacher and peers.	3.15	0.75	Agree (Moderately Resilient)
2.İ distract myself by doing other things.	2.85	0.88	Agree (Moderately Resilient)
3.İ accept and repond to constructive criticism positvely.	3.37	0.65	Agree (Moderately Resilient)
4.İ refpect and gain viewpoints about myself and learn from experiences.	3.43	0.64	Agree (Moderately Resilient)
5.İ establishe a partnership with a person with a high sense of humor.	3.33	0.62	Agree (Moderately Resilient)
OVERALL	3.23	0.74	Agree (Moderately Resilient)

Legend: 3.50-4.00 (Strongly Agree/Strongly Resilient), 2.50-3.49 (Agree/Moderately Resilient), 1.50-2.49 (Disagree/Resilient), 1.00-1.49 (Strongly Not Resilient)

Table 9 shows the perceived level of Academic Resilience to Adaptive Help-Seeking. The highest mean of 3.43 with the verbal interpretation of "agree (moderately resilient)" indicates that students reflect and gain viewpoints about themselves and learn from experiences. This implies that most respondents can evaluate their strengths, weaknesses, opportunities, and threats. These components could help the students identify the factors that need improvements or could affect them in the learning environment. The least mean of 2.85 states students can distract themselves by doing other things perceived as moderately resilient. It may possess that most respondents can still manage their academic workloads by diverting the stressor to making fun of jokes or dealing with someone with high enthusiasm. Generally, the respondent's Academic Resilience to Adaptive help-seeking level has an overall mean of 3.23, verbally interpreted as "moderately resilient. Thus, the data revealed that most respondents deal with academic challenges and distress independently and with minimal assistance from their classmates and teachers. Academic self-concept was described by Reynold (1988) as views of an individual's ability and competence level concerning a student's skills in an academic context. It may also be described as a person's evaluation of their academic talents and competencies (Trautwein et al. 2006). The phrase "academic self-concept" has been widely used in

psychology and education for several decades. It is a psychological notion frequently used to describe students' confidence and conviction in their academic ability in particular subjects. According to Wigfield and Karpathian (1991), a person's academic self-concept may be best described as their knowledge of and comprehension of the academic environment and how they feel about their capacity to do better academically.

Table 10
Respondents' level of academic resilience as to emotional response

İn dealing with the academic challenes and distress...	Mean	Std. Deviation	Verbal Interpretation
1.İ prevent myself from worrying over things that are beyond my control.	3.13	0.74	Agree (Moderately Resilient)
2.İ relate my feeling to what i think, do and say.	3.21	0.71	Agree (Moderately Resilient)
3.İ manage my impluse feelins and distressing emotions well.	3.13	0.73	Agree (Moderately Resilient)
4.İ liek to spend time with my classmates and learn from them.	3.33	0.66	Agree (Moderately Resilient)
5.İ cheer myself with humor.	3.35	0.69	Agree (Moderately Resilient)
OVERALL	3.23	0.71	Agree (Moderately Resilient)

Legend: 3.50-4.00 (Strongly Agree/Strongly Resilient), 2.50-3.49 (Agree/Moderately Resilient), 1.50-2.49 (Disagree/Resilient), 1.00-1.49 (Strongly Not Resilient)

Generally, the respondent's level of Academic Resilience as to Emotional Response has an overall mean of 3.23, verbally interpreted as "agree (moderately resilient)." It implies that most respondents possess emotional balance by setting aside something that causes them to feel uncertain. (Lazarus and Folkman, 1984) Emotionally oriented coping techniques include avoidance or denial, distance, reduction of the problem, positive comparison or positive reinterpretation, finding positive qualities in unpleasant situations, and acceptance. Emotion-focused techniques mostly concentrate on altering attitudes about stress. When the stressor is viewed as exceedingly dangerous and unmanageable, there is a lack of understanding about how to address or track the issue, and these tactics are adopted. College students may experience several pressures, occasionally unaware of the origins. They must thus adopt emotionally based coping mechanisms in response to such an event. Even while problem-focused coping is ideal, not all situations call for it. For instance, a problem-focused method would not be particularly useful for someone who failed their yearly assessment. Emotion-focused coping is necessary for overcoming the sense of failure. It is the ideal tactic for kids who struggle to take charge of situations.

Table 11
Respondents' level of academic resilience as to perseverance

İn dealing with the academic challenges and distress...	Mean	Std. Deviation	Verbal Interpretation
1.İ look forward to showing that i can improve my grades.	3.44	0.66	Agree (Moderately Resilient)
2.İ cultivate my skills and knowledge to learn thoroughly.	3.43	0.64	Agree (Moderately Resilient)
3.İ push myself to study hard to the best of my abilities.	3.43	0.66	Agree (Moderately Resilient)
4.İ commit myself to doing the assigned task.	3.43	0.66	Agree (Moderately Resilient)
5.İ show initiative and demonstrate an interest in the subject.	3.37	0.65	Agree (Moderately Resilient)
OVERALL	3.42	0.65	Agree (Moderately Resilient)

Legend: 3.50-4.00 (Strongly Agree/Strongly Resilient), 2.50-3.49 (Agree/Moderately Resilient), 1.50-2.49 (Disagree/Resilient), 1.00-1.49 (Strongly Not Resilient)

As observed in Table 11, indicators are entirely perceived by the respondents as "agree (moderately resilient)." The highest mean of 3.44 indicates that the respondents look forward to improving their grades. As students are enrolled in the subject, it is their responsibility to do most of the part to keep

up with the discussion, assignments, and other requirements, such as reading/viewing the resources guided by the course syllabus. Thus, students committed to academic tasks may cultivate their skills and knowledge, push themselves to study hard, and persevere to gain the highest possible score because their activities are graded according to the rubrics provided. Generally, the respondent's level of Academic Resilience as to Perseverance has an overall mean of 3.42, which is verbally interpreted as moderately resilient. Amidst academic adversity, the respondents are eager to accomplish academic responsibilities to excel in class.

Table 12
Summary of respondents' level of academic resiliency

HYBRID FLEXIBLE LEARNING	Mean	Std. Deviation	Verbal Interpretation
1. Adaptive Self-seeking	3.23	0.74	Agree (Moderately Resilient)
2. Emotional response	3.23	0.71	Agree (Moderately Resilient)
3. Perseverance	3.42	0.65	Agree (Moderately Resilient)
OVERALL	3	0.70	Agree (Moderately Resilient)

Legend: 3.50-4.00 (Strongly Agree/Strongly Resilient*), 2.50-3.49 (Agree/Moderately* Resilient*), 1.50-2.49 (Disagree/*Resilient*), 1.00-1.49 (Strongly Not* Resilient*)*

Table 12 shows the summary table on the respondents' level of Academic Resiliency. All variables are interpreted as moderately resilient. The variable on perseverance got the highest mean of 3.42. Generally, an overall mean of 3.29 revealed that the respondents agree on the level of academic resiliency as moderately resilient. It means they show perseverance by adhering to accomplished and performing better even when confronted with a difficult situation. They wanted to excel in their class and fulfill their academic responsibilities.

Part Iv: Level of Academic Engagement of the Respondents

Students' Academic Resilience elicits information that includes affective, behavioral, and cognitive presented in Tables 13 to 15. The result in Table 13 indicates the highest mean of 3.53, stating that the respondents appreciate learning the lessons and are perceived as "strongly agree (highly engaged)." This implies that the respondents develop an interest in learning that cause them to participate in class discussions. It may also show that the learning environment promotes collaborative learning experiences and recognizes student accomplishment.

Table 13
Level of academic engagement as to affective

İn attending hybrid flexible learning in physical education...	Mean	Std. Deviation	Verbal Interpretation
1.İ appreciate learning the lessons.	3.53	0.65	Agree (Higly Engaged)
2.İ am inspired to be more cooperative in class discussions.	3.33	0.71	Agree (Slightly Enagaged)
3.İ received recognition for accomplishing my tasks.	3.28	0.76	Agree (Slightly Enagaged)
4.İ feel comfortable to get along with others.	3.31	0.74	Agree (Slightly Enagaged)
5.İ feel valued and appreciated within the group.	3.30	0.72	Agree (Slightly Enagaged)
OVERALL	3.42	0.65	Agree (Moderately Resilient)

Legend: 3.50-4.00 (Strongly Agree/Strongly Engaged), 2.50-3.49 (Agree/Moderately Engaged), 1.50-2.49 (Disagree/Engaged), 1.00-1.49 (Strongly Not Engaged)

Generally, the respondent's level of Academic Engagement as to Affective has an overall mean of 3.35 which is perceived as "agree (slightly engaged)." Furthermore, the data revealed that the level of academic engagement ensures that diverse individuals can contribute effectively and recognize their vital role in class. Thus, it may promote a sense of belonging so the students feel at ease collaborating and appreciating the learning setting. According to Alvarez-Bell, Rosa, Wirts, Derick, Bian, and Hui (2017), it is crucial for students to feel good about themselves to be competent in tasks like higher-order, group, and self-directed learning. Additionally, an intriguing Affective Model was discovered

by Khawlah Altuwairqi, Salma Kammoun Jarraya, Arwa Allinjawi, and Mohamed Hammamib (2018) that might gauge student participation based on their sentiments and emotions. Their research revealed that the strongest emotions associated with engagement were surprise, eagerness, disappointment, and boredom. Students were more likely to have high or low engagement depending on how exciting or tedious the assigned activities were.

Table 14
Respondents' level of academic engagement as to behavioral

İn attending hybrid flexible learning in physical education...	Mean	Std. Deviation	Verbal Interpretation
1.İ am active in participanting in discussions.	3.17	0.75	Agree (Slightly Engaged)
2.İ make sure to study regularly.	3.20	0.69	Agree (Slightly Enagaged)
3.İ try to do well in my class.	3.49	0.61	Agree (Slightly Enagaged)
4.İ commit myself to doing my tasks.	3.47	0.62	Agree (Slightly Enagaged)
5.İ enjoy every minute of doing my tasks.	3.22	0.72	Agree (Slightly Enagaged)
OVERALL	3.31	0.69	Agree (Moderately Engaged)

Legend: 3.50-4.00 (Strongly Agree/Strongly Engaged), 2.50-3.49 (Agree/Moderately Engaged), 1.50-2.49 (Disagree/Engaged), 1.00-1.49 (Strongly Not Engaged)

Table 14 presents the perceived level of academic engagement as to behavior. As observed, all indicators are interpreted as "agree (slightly engaged)." The highest mean of 3.49 indicates that students are trying to do well in class. Generally, the respondent's level of Academic Engagement as to Behavioral has an overall mean of 3.31, verbally interpreted as agreeing that they are slightly engaged. It may be predicted that the students' observable attitudes to performing in class contribute to better learning experiences. As tertiary students, it is expected that they are capable of having high-level personal well-being to cope with their knowledge, skills, and values.

Table 15
Respondents' level of academic engagement as to cognitive

İn attending hybrid flexible learning in physical education...	Mean	Std. Deviation	Verbal Interpretation
1.İ can discuss my ideas and opinion.	3.18	0.72	Agree (Slightly Engaged)
2.İ can make judgements and decisions.	3.33	0.64	Agree (Slightly Enagaged)
3.İ can make an example to help me understand the lessons.	3.29	0.60	Agree (Slightly Enagaged)
4.İ can integrate the lessons into other subjects, such as physics and psychology.	3.20	0.67	Agree (Slightly Enagaged)
5.İ can learn more than what is expected in the lesson.	3.30	0.64	Agree (Slightly Enagaged)
OVERALL	3.26	0.66	Agree (Moderately Engaged)

Legend: 3.50-4.00 (Strongly Agree/Strongly Engaged), 2.50-3.49 (Agree/Moderately Engaged), 1.50-2.49 (Disagree/Engaged), 1.00-1.49 (Strongly Not Engaged)

Table 15 presents the perceived level of academic engagement as to cognitive. As observed, all indicators are interpreted as "agree (slightly engaged)." The highest mean of 3.33 indicates that students can make judgments and decisions. Generally, the respondent's level of Academic Engagement as to Cognitive has an overall mean of 3.26, which is verbally interpreted as slightly engaged. As perceived in the table, it implies that the academic engagement of the respondents as to cognitive provides learning experiences that exhibit critical, analytical, and creative thinking. This might predict that engagement in physical education allows students to state their observations, such as game violations and fouls, evaluate a good quality of dance, and create dance choreography. Moreover, these engagement activities promote discovery learning and enable students to learn beyond what is expected. According to Koszalka and Lee (2016), cognitive engagement might be measured by how well students apply cognitive and metacognitive methods. According to Koszalka

and Lee (2016), the four methods of rehearsal, elaboration, organization, and critical thinking may be used to demonstrate cognitive involvement. Additionally, it was shown that group conversations involved knowledge-creation activities such as conceptual understanding, idea elaboration, and justification (Khosa and Volet, 2014).

Table 16
Summary of respondents' level of academic engagement

ACADEMIC ENGAGEMENT	Mean	Std. Deviation	Verbal Interpretation
1.Affective	3.35	0.72	Agree (Slightly Engaged)
2.Behavioral	3.31	0.69	Agree (Slightly Engaged)
3.Cognitive	3.26	0.66	Agree (Slightly Engaged)
OVERALL	3.30	0.69	Agree (Moderately Slightly Engaged)

Legend: 3.50-4.00 (Strongly Agree/Strongly Engaged*), 2.50-3.49 (Agree/Moderately* Engaged*), 1.50-2.49 (Disagree/*Engaged*), 1.00-1.49 (Strongly Not* Engaged*)*

Table 16 shows the summary table on the respondents' level of Academic Engagement. All variables are interpreted as "agree (slightly engaged)" The variable on affective got the highest mean of 3.35. Generally, the respondents' level of academic resiliency is 3.30, interpreted as slightly engaged. It can be deduced from the findings that students' academic engagement level in attending PE classes using hybrid or Hyflex modality is still appreciated by them. This may be attributed to the fact that tertiary students are mature enough to easily adapt to the situation provided to them, particularly in doing physical activities. Additionally, they are mature enough to adapt to the situation and can think critically to make judgments and decide for themselves. The responders' cognitive academic engagement offers learning opportunities that showcase critical, analytical, and creative thinking. This may indicate that participating in physical education encourages students to express their observations, such as fouls and game infractions, assess high dance quality, and develop dance choreography. Additionally, these engagement activities encourage curiosity and learning, allowing them to learn more than is required.

Part V. Test of Relationship Between Variables

The test of correlation establishes whether there is a linear relationship between Hybrid Flexible (HyFlex) Learning to Students' Academic Resiliency and Engagement.

Table 17
Relationship between hybrid flexible learning and academic resilience

	ACADEMIC RESILIENCE		
Hybrid Flexible Learning in PE	Adaptive Hekp-Seeking	Emotional Response	Perseverance
1. Accessibility	0.587**	0.599**	0.613**
2. Equivalency	0.605**	0.618**	0.646**
3. Leaner's choice	0.541**	0.482**	0.513**
4. Reusability	0.697**	0.613**	0.645**

*** Correlation is significant at the 0.1 (2 tailed)* * *Correlation is significant at the 0.05 (2 tailed)*

The data on the correlation test between Hybrid Flexible Learning towards Students' Academic Resilience in Physical Education are presented in Table 17. The data reveal that all the variables in Hybrid Flexible Learning are significantly related to the student's Academic Resilience in terms of adaptive help-seeking, emotional response, and perseverance. All modalities must adhere to the accessibility concept since a student's learning ability would be hampered (Detyna, Pizani, Giampietro, Dommett, and Dyer, 2022). Students should have the appropriate technology resources to help them select the mode. Even individuals who want to take classes in person need access to all the resources necessary to succeed in their educational endeavors. Equivalency directs instruction because lectures must be designed to provide students with challenging alternatives to traditional learning methods regardless of the modality students pick. Since this concept stresses ensuring no group is left

out, how the modality is designed is crucial. Because HyFlex learning integrates three modalities, it's crucial to remember that equivalent does not necessarily imply equal. In certain instances, it is impossible to create an identical replica of the synchronous learning design for the asynchronous modality of the same course. As a result, learning opportunities should be offered at the same level regardless of the medium.

In a setting free from many pressures associated with traditional learning, hyperflex learning offers a unique chance to examine students' preferences. According to Keiper, White, Carlson, and Lupinak (2021), most students consider their persuasiveness and flexibility while choosing a subject. This principle's basic tenet is that all possible learning modes should be made available to students, who should then be given a choice. According to Thomson, Fisher, and Steiner's (2022) thesis, various learning modalities must modify teaching and learning for learning objectives to be successfully met. The cost and time required to generate course materials might be significantly reduced with reusable learning materials, making it simple to adapt the material to new learning modes. However, rather than being viewed as an add-on, the learning material must be created with reusability in mind from the beginning to be effective. When creating reusable learning resources, it's important to ensure they can be adapted across all three learning modes. It can be interpreted that the coping process of the respondents depends on the level of academic adversity. In this case, it is observed that the Hybrid Flexible Learning in Physical Education, accessibility, equivalency, learners' choice, and reusability, tends to be adaptive and ensure appropriate learning approaches since most respondents can manage their academic challenges and distress.

Table 18
Relationship between hybrid flexible learning and academic engagement

	ACADEMIC RESILIENCE		
Hybrid Flexible Learning in PE	Affective	Behavioral	Cognitive
1. Accessibility	0.625**	0.558**	0.597**
2. Equivalency	0.729**	0.638**	0.653**
3. Leaner's choice	0.554**	0.510**	0.514**
4. Reusability	0.717**	0.600**	0.625**

*** Correlation is significant at the 0.1 (2 tailed)* * *Correlation is significant at the 0.05 (2 tailed)*

The data on the correlation test between Hybrid Flexible Learning in Physical Education and Academic Engagement are presented in Table 18. The data reveal that all the variables in Hybrid Flexible Learning in Physical Education are significantly related to the student's Academic Engagement in terms of affective, behavioral, and cognitive. It can be interpreted that the students' psychological and behavioral efforts in the learning process be determined according to their interests, motivation, diversity, and attitudes. Although students experience academic adversity, it is evident that Hybrid Flexible Learning in Physical Education efficiently fosters collaboration in different activities and assessments. According to Sun and Hsieh (2019), engagement gauges students' involvement in the learning process. Groccia (2018) defines student engagement as "participation in educationally successful methods, both inside and outside the classroom, which leads to a range of measurable results." The three components of engagement most often acknowledged are cognitive, emotional, and behavioral (Kucuk & Richardson, 2019). To optimize the potential for student learning and engagement, Liu and Rodriguez (2019) claim that the module of delivery in HyFlex courses requires pedagogical techniques. In addition to the cognitive abilities taught or acquired, engagement focuses on people's attitudes about classroom experiences and lifelong learning. Lei, Chui, and Zhou (2022) claim that motivated students who are committed or invested in their desire to learn and prepared to put in the effort their lecturer asks are more likely to be engaged in an online or face-to-face class. The motivation and learning of students are increased through learning activities that turn them from passive to active participants in elaborating, discussing, sharing, questioning, and problem-solving. (2002) (Ouk & Choi. Therefore, instructional activities must be created to promote

engagement regardless of a student's learning style. Whether face-to-face or online, learning is still an interactive social event whose success is determined by the lecturer's ability to generate a feeling of presence and engage students in the learning process. The key to HyFlex student engagement is to engage students and help them take greater responsibility for their learning, regardless of their learning path.

CONCLUSION, DISCUSSION, AND SUGGESTIONS

The study's findings have led to the rejection of the hypothesis that Hybrid Flexible (HyFlex) Learning has no significant correlation with students' academic resilience and engagement in Physical Education. These results point to a statistically significant connection between the HyFlex learning framework and the levels of resilience and engagement exhibited by students in the field of Physical Education. The outcomes suggest that the flexibility and autonomy provided by HyFlex learning environments can have a positive impact on students' ability to adapt to challenges (academic resilience) and their level of participation and commitment to learning activities (engagement). These conclusions highlight the potential of HyFlex learning to cater to various learning needs, boost motivation, and create a more inclusive and responsive educational atmosphere, especially in subjects like Physical Education that traditionally rely on face-to-face, interactive experiences. This also emphasizes the need for educational institutions to consider integrating HyFlex modalities not only as a contingency plan but as a deliberate instructional strategy to support student development and success in dynamic learning environments.

RECOMMENDATIONS

Based on the aforementioned findings and conclusions, it is suggested that several recommendations be put forth to improve educational practice, specifically in the utilization of Hybrid Flexible (HyFlex) Learning within Physical Education. Firstly, it is recommended that program coordinators explore the integration of HyFlex Learning into various workshops and training sessions. This will facilitate a deeper comprehension of its utilization, allowing educators to evaluate its efficacy and suitability across different modes of participation. Additionally, Physical Education instructors are urged to engage in ongoing professional development through educational training programs focused on the principles and practical application of HyFlex course design. It is imperative for instructors to embrace adaptive and flexible teaching methodologies in order to effectively respond to the ever-changing dynamics of learning environments. In a HyFlex Learning environment, students are encouraged to choose between online and in-person participation according to their personal needs, preferences, and coping mechanisms. These decisions, whether based on convenience, academic progress, or social interaction, are essential for fostering resilience and minimizing academic pressure. Additionally, this study aims to make a valuable contribution to the understanding of HyFlex Learning in Physical Education. It is recommended that future researchers conduct similar studies to investigate other factors that could impact the successful implementation of this teaching approach.

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