



Growth Mindset and the Learner Agency Practices of Students in Flexible Learning: Towards a Quest for Sustainable Education

Virginia I. Berganio

Universidad de Manila
Manila, Philippines

virgieberganio@gmail.com

<https://orcid.org/0009-0009-1647-9566>

Alona M. Timbre

Universidad de Manila
Manila, Philippines

amtimbre@udm.edu.ph

<https://orcid.org/0009-0007-3681-008X>

Ronnie F. Sta. Maria

Universidad de Manila
Manila, Philippines

ronniestamaria01@gmail.com

<https://orcid.org/0009-0007-9917-923X>

Alistair B. Selorio

Universidad de Manila
Manila, Philippines

abselorio@udm.edu.ph

<https://orcid.org/0009-0005-6957-9289>

Jackielyn B. Patarata

Universidad de Manila
Manila, Philippines

majackielynpatarata@gmail.com

<https://orcid.org/0000-0002-6550-9022>

Abstract. This study examined the relationship between growth mindset and learner agency practices among higher education students engaged in flexible learning modalities during the COVID-19 pandemic. Grounded in Dweck's Growth Mindset Theory, Bandura's Human Agency Theory, and Social Constructivism, the study conceptualizes learning as an interaction between individual beliefs, self-regulatory actions, and socially mediated learning experiences. A quantitative descriptive-correlational research design was employed involving 320 students from the Universidad de Manila selected through cluster sampling. Data were gathered using validated survey questionnaires. Descriptive statistics, ANOVA, and Pearson r correlation were utilized to analyze the data. Findings revealed a very weak correlation ($r = -0.012$, $p > .05$) between growth mindset and learner agency practices, indicating that these constructs operate relatively independently in flexible learning contexts. Despite this, students generally demonstrated high levels of learner agency, particularly in motivation, planning, and task management, while stress management remained a consistent challenge. The findings suggest that learner agency may be influenced more by contextual and experiential factors than by mindset alone. The study highlights the need for interventions that strengthen self-regulation, coping strategies, and learner autonomy in flexible learning environments.

Keywords: *growth mindset, learner agency, flexible learning, sustainable education*

Introduction

The COVID-19 pandemic significantly transformed the delivery of instruction in higher education by introducing flexible learning modalities. In the Philippines, higher education institutions rapidly adopted flexible learning approaches in compliance with the directives of the Commission on Higher Education (CHED). Literature has documented these transformations in Philippine higher education and the challenges associated with the transition to remote and flexible learning environments (Joaquin et al., 2020). Similarly, international studies revealed several issues related to online and flexible learning, including technical difficulties, unequal access to digital resources, and varying levels of institutional and learner preparedness (Aristovnik et al., 2023; Hofer et al., 2021).

Despite these efforts, recent studies continue to identify challenges in implementing flexible learning strategies, particularly in sustaining learner motivation, engagement, and effective participation in online environments (Cortes, 2020; Islam et al., 2015; Naidu, 2017). Research further suggests that online learning may become less effective for students who lack self-regulation skills and appropriate coping mechanisms (He et al., 2022; Hong et al., 2021; Xu et al., 2022). These concerns highlight the limitations of relying solely on cognitive indicators of academic achievement and emphasize the importance of examining non-cognitive dimensions of learning. Moreover, learners have reported difficulties in maintaining motivation, managing independent learning tasks, and adapting to the demands of flexible learning environments, indicating the need for stronger institutional support and learner development programs (Taghizadeh & Behjat, 2021).

Among the constructs associated with student adaptation and success in flexible learning environments are growth mindset and learner agency. Growth mindset, as defined by Carol Dweck, refers to the belief that intelligence and abilities can be developed through continuous effort, persistence, and learning experiences (Dweck, 2006; Claro et al., 2016). Studies have shown that learners with a growth mindset are more likely to demonstrate resilience, persistence, and self-regulated learning behaviors in online learning environments (Jiang et al., 2023). Learner agency, on the other hand, refers to the learners' capacity to take active control of their own learning through goal-setting, decision-making, self-management, and responsible participation in learning activities. This concept is grounded in Bandura's Human Agency Theory (Bandura, 2006), which emphasizes intentional action and self-regulation in achieving desired outcomes. Learner agency becomes particularly important in flexible and remote learning settings where students are expected to assume greater responsibility for their own learning (Ajjawi et al., 2022). In addition, Social Constructivism explains learning as a socially mediated and collaborative process shaped by interactions and experiences within learning environments (Mercer, 2015).

Although previous studies have examined growth mindset and learner agency independently, little research has examined their relationship within flexible learning contexts. Existing literature suggests that growth mindset primarily influences motivation, resilience, and learning attitudes, while learner agency is shaped not only by individual characteristics but also by contextual and environmental factors such as instructional support, learning experiences, and access to resources (Farrington et al., 2012; Zimmerman, 2002). Consequently, there remains a need to further investigate how these constructs interact among students engaged in flexible learning environments.



Thus, this study aimed to examine the relationship between growth mindset and learner agency practices among students of the Universidad de Manila engaged in flexible learning. Specifically, the study sought to describe the demographic profile of the respondents, determine their level of growth mindset and learner agency practices, identify significant differences in these variables when grouped according to demographic characteristics, and determine the relationship between growth mindset and learner agency practices.

Methodology

This study utilized a quantitative descriptive-correlational research design to determine the relationship between growth mindset and learner agency practices among students engaged in flexible learning. The descriptive component was used to assess respondents' level of growth mindset and learner agency practices, while the correlational component examined the relationship between the two variables.

A total of 320 undergraduate students were selected through cluster sampling, representing different degree programs of the Universidad de Manila.

The investigation took place at the Universidad de Manila, a public higher education institution based in Manila, Philippines. The institution was chosen as the site of this research because it was accessible to the researchers and was already employing various flexible learning modes.

Data were collected using a structured survey questionnaire divided into three sections. The first section gathered demographic information, including age, sex, family income, employment status, and learning style. The second section measured growth mindset using a 4-point Likert scale, while the third section measured learner agency practices in terms of motivation, organizing and planning work, resourcefulness, stress management, note-taking, and task preparation..

The data collection tools for the quantitative part were validated by education experts who evaluated their relevance to the research problem. In addition, a pilot study tested the instrument's reliability by administering it to 30 respondents. Based on the analysis of the data, the Cronbach's alpha score was 0.87.

Quantitative data were analyzed using descriptive and inferential statistics. Frequency, percentage, mean, and standard deviation were used to describe the demographic profile and levels of the variables. ANOVA was used to assess significant differences across demographic profiles, while Pearson r correlation was used to assess the relationship between growth mindset and learner agency practices.

To increase validity, data triangulation was applied by combining quantitative and qualitative findings. This involved a comparison between the statistics and themes to see the similarities, connections, and discrepancies in order to have an overall understanding of the data.

Ethical considerations were observed in the conduct of the study in accordance with the stipulations of the Data Privacy Act of 2012. All the participants gave their consent and participated voluntarily. The researchers also assured the

participants that all data gathered during the study would be handled with utmost confidentiality and used solely for academic purposes.

Results

Table 1.
Profile of the Respondents (N=320)

	f	%
Sex		
Male	121	38%
Female	199	62%
Age		
17 – 21 years old	124	38.75%
22 – 26 years old	187	58.44%
27 – 31 years old	5	1.56%
32 – 36 years old	4	1.25%
Family Income		
Below 10, 000	190	59.4%
10,000 – 19,000	96	30.0%
20,000 – 29, 000	26	8.1%
30,000 and above	8	2.5%
Order of Birth		
Only Child	5	1.56%
1st	65	20.31%
2nd	69	21.56%
3rd	82	25.63%
4th	44	13.75%
5th	25	7.81%
6th and higher	27	8.44%
Did not respond	3	0.94%
General Weighted		
80 - 84	23	7.2%
85 - 89	97	30.3%
90 - 94	169	52.8%
95 - 99	31	9.7%
Working Status		
Yes	50	15.63%
No	267	83.44%
Did not respond	3	0.94%
Learning Styles		
Visual	243	75.9%
Auditory	28	8.8%
Kinesthetic	49	15.3%

The demographic profile indicates that a greater proportion of respondents were female, at 62%, consistent with national enrollment trends in education



programs, where females constitute a larger proportion of pre-service teachers. Most students fell within the 17–26 age group, at 97.2%, reflecting a traditionally aged college population. However, the minimal representation of older students showed limited participation from non-traditional learners during the pandemic. A considerable majority came from low-income families; 59.4% of respondents earned below ₱10,000 monthly, which is consistent with studies showing that many Filipino learners struggled with economic constraints in pursuing remote learning. Birth order and working status further underpin the socio-academic pressures experienced by students, with only 15.8% reporting employment, suggesting many were supported by their families while studying. Academic performance data revealed that more than half of the respondents had a GWA between 90 and 94, indicating generally high academic standing despite challenges in flexible learning.

The results on learning styles show that the majority of respondents preferred visual learning (75.9%), which corroborates the literature indicating that, in online and modular settings, students are more interested in visually rich materials such as diagrams, videos, and infographics. From this basis, there is a serious implication for instructional design, urging the creation of visually oriented digital content to improve comprehension and engagement. Meanwhile, the students' generally strong academic performance amid economic hardship may reflect resilience, a growth mindset, or effective learning strategies—traits associated with recent studies on student agency during the pandemic. Overall, the demographic profile indicates that socioeconomic conditions, learning preferences, and academic capacity influenced students' engagement in and approaches to learning during remote instruction. These findings emphasize the need to design pedagogical approaches responsive to diverse learner backgrounds, especially in contexts where economic limitations intersect with new learning modalities.

Table 2.
Respondents' Level of Growth Mindset According to Work Status Profile

Working Status	N	Mean	Level of Growth Mindset
Yes	50	3.54	Achieving
No	267	3.55	Achieving

Table 2 shows that both working and non-working students demonstrated an achievement level of growth mindset, with mean scores of 3.54 and 3.55, respectively.

The minimal difference between groups suggests that employment status does not substantially influence students' growth mindset.

Table 3.
Summary of Respondents' Level of Learner Agency Practices

	Motivation	Organizing and Planning Work	Working with others/Resourcefulness	Managing School Stress	Note taking and reading	Preparing and assignment	Overall LAP
Sex	3.26	3.35	3.18	2.28	3.22	3.45	3.10
Age	3.05	3.37	3.18	2.40	3.24	3.43	3.11
Family Income	3.27	3.36	3.22	2.50	3.23	3.39	3.16
Birth Order	3.28	3.38	3.23	2.20	3.29	3.42	3.13
GWA	3.24	3.34	3.18	2.29	3.19	3.35	3.10
Working Status	3.28	3.36	3.21	2.23	3.28	3.39	3.13
Learning Styles	3.25	3.35	3.20	2.31	3.23	3.39	3.13

1.00 – 1.74 – Low Learner Agency, 1.75 – 2.49 – Moderate Learner Agency, 2.50 – 3.24 – High Learner Agency, 3.25 – 4.00 -Very High Learner Agency

The overall summary of learner agency practices across all demographic profiles reveals that the respondents generally demonstrated high to very high levels of learner agency, with overall LAP scores ranging from 3.10 to 3.16. Among these, motivation, organizing and planning work, note-taking, and preparing assignments were perceived as highest across all categories, reflecting students' strong ability to self-regulate, plan, and carry out academic tasks.

On the other hand, managing schoolwork stress always received the lowest score across all categories, 2.20 to 2.50, underscoring a common challenge in coping with academic pressures despite students' overall strong engagement and agency.

These data indicate that demographic variables like sex, age, family income, birth order, GWA, working status, and learning style do not strongly distinguish learner agency, although some minor variations exist. For example, students from higher-income brackets or older age brackets had slightly higher overall agency, possibly due to maturity, experience, or greater resource availability. This is consistent with previous literature indicating that learner agency is developed through individual attributes and academic performance, as well as through available environmental support, learning experiences, and opportunities for personal growth and development.

The consistency in strength across motivation, planning, and task preparation accentuates the di-rection toward self-directed learning strategies, while the relatively lower scores in stress management indicate the need for interventions to enhance coping and resilience skills during academic tasks. These results emphasize that, even while students demonstrate strong agency, targeted support for managing stress and developing adaptive strategies remains an important intervention for holistic learning development.



Table 4.
Differences on the level of Growth Mindset with regards to demographic profile

Group	F	F-crit	P-value	Differences
Sex	0.056	3.871	0.812	Not significant
Age	0.503	2.633	0.680	Not significant
Family Income	0.826	2.633	0.480	Not significant
Birth Order	0.494	2.128	0.813	Not significant
GWA	1.537	2.633	0.205	Not significant
Working Status	0.045	3.871	0.831	Not significant
Learning Styles	0.943	3.024	0.390	Not significant

The analysis shows that there are no significant differences among students with regard to sex, age, family income, birth order, GWA, working status, or learning styles, since all p-values are above the 0.05 limit and all the F-values are below the respective F-critical values. This insinuates that growth mindset is relatively consistent across different demographic groups; therefore, individual attitudes toward learning, overcoming challenges, and self-improvement do not strongly depend on these background factors.

These findings are consistent with the literature in suggesting that growth mindset is a concept largely determined by personal beliefs, motivation, and learning experiences rather than demographic characteristics of individuals (Dweck, 2006; Farrington et al., 2012). The resemblance of growth mindset across diverse profiles of students also gives an indication of its potential as a universal target for educational interventions, where strategies to foster adaptive learning behaviors, resilience, and self-efficacy can be applied with broad coverage and without the need for demographic-specific tailoring. This suggests that in a larger context, the development of a growth mindset might support students in the equitable development of learner agency and academic engagement from any socioeconomic or personal background.

Table 5.
Differences on the Level of Learner Agency Practices with regards to Demographic Profile

Group	F	F-crit	P-value	Differences
Sex	0.847	3.871	0.358	Not significant
Age	1.448	2.633	0.229	Not significant
Family Income	1.372	2.633	0.251	Not significant
Birth Order	0.617	2.128	0.717	Not significant
GWA	3.854	2.655	0.010	Significant
Working Status	0.109	3.871	0.740	Not significant
Learning Styles	0.416	3.024	0.659	Not significant

Most of the demographic variables, such as sex, age, family income, birth order, working status, and learning styles, do not show significant differences in the students' learner agency practices; the p-values are all greater than 0.05. This means that learner agency is fairly consistent across these demographic groups, showing that things like gender, socioeconomic background, or preferred learning style may not strongly influence students'

ability to take initiative, organize work, and engage in self-directed learning.

However, the analysis revealed a significant difference in learners' agency by GWA ($p = 0.010$), indicating that academic performance level affects the exercise of agency. Those in the higher strata of the GWA tend to show the most agency, probably due to more self-regulation and motivation, along with better learning strategies, which are supported in the literature in terms of academic achievement being associated with increased self-directed learning and personal initiative (Zimmerman, 2002; Farrington et al., 2012). In the broader perspective, such findings recommend nurturing learner agency as a major determinant of academic performance, noting that interventions to enhance planning, motivation, and resourcefulness could benefit the performance spectrum, with particular support for low-achieving students.

Table 6.
Relationship Between the Respondents' Level of Growth Mindset and Level of Learner Agency Practices

Group		r	Interpretation
Growth Mindset	Learner Agency	-0.012	weak negative correlation
	(a) Motivation	-0.014	Weak negative correlation
	(b) Organizing and	0.020	Weak positive correlation
	(c) Working with	0.001	Weak positive correlation
	(d) Managing School	-0.042	Weak positive correlation
	(e) Note taking and	-0.009	Weak positive correlation
	(f) Preparing and	0.020	Weak positive correlation

The correlation analysis revealed a very weak relationship ($r = -0.012$, $p > .05$) between growth mindset and learner agency practices. This indicates that a growth mindset does not significantly predict learner agency in this sample. Domain-specific correlations were also negligible, suggesting that learner agency is influenced more by contextual and experiential factors than by mindset alone.

These findings are in line with the suggestions of other studies that, though growth mindset may determine certain learning attitudes and behaviors, learner agency, including motivation, planning, resourcefulness, and self-management, is shaped by contextual, environmental, and experiential factors such as instructional strategies, access to resources, and personal responsibilities (Farrington et al., 2012; Zimmerman, 2002). Within the broader framework of education, this means that enabling learner agency entails more than just building a growth mindset; it requires deliberate intervention to develop practical skills, self-regulatory behaviors, and coping strategies, alongside mindset development.

Conclusions

This study has revealed that learners enrolled in the College of Education at the Universidad de Manila exhibit high learner agency despite obstacles in flexible learning settings. The learners have displayed high skills in motivation, task organization and planning, note-taking, task preparation, and other learner agency activities. This shows that the learners can independently perform the academic requirements in flexible learning modes. But when it comes to managing stress, this becomes the least proficient area. This means



that even though the learners can control their academic tasks, they cannot manage academic stress.

In addition, from the results, it is clear that academic success plays a vital role in determining the level of agency in learners, as learners who performed well academically exhibited self-regulated behaviors and learner autonomy compared to those learners who did not perform well academically. Growth Mindset, on its own, does not have any relationship with learner agency. This means that although a positive attitude towards learning can lead to effective learning, it cannot necessarily guarantee effective learning behaviors.

Recommendations

Based on the research results, some recommendations for enhancing learner agency and promoting sustainable education in flexible learning environments can be made. The university system needs to improve the support of its learners through initiatives that will focus on stress management, resilience, and overall mental health of learners. As was indicated during the research, stress management is the lowest aspect of learner agency, which means that universities need to take measures such as offering counseling sessions, wellness initiatives, resilience training, and other similar activities to help students learn how to regulate their emotions and improve their mental state.

Learners are also advised to use learner-centered instructional approaches that foster autonomy, reflection, collaboration, and self-regulated learning. Approaches to instruction such as scaffolding, reflective journaling, collaborative learning activities, project-based learning, and guided planning exercises may assist learners in developing abilities to control and regulate their learning processes. By creating positive learning environments, educators can motivate students to be independent, self-motivated, and reflective learners.

The curriculum should include developing learner agency as part of the learning objectives, learning content, and learning assessment activities. Flexibly designed learning programs should offer students the opportunity to engage in independent decision-making, critical thinking, problem-solving, self-assessment, and collaborative involvement.

Policies for educational institutions, such as the Commission on Higher Education, may want to take into account the development of learner agency and the inclusion of psychological social interventions in their policies regarding flexible learning. It is necessary for policies concerning flexible learning to be inclusive of not just academic and technology concerns, but also the well-being and holistic development of the students. Enhanced support systems within the institution, as a result, may help create more sustainable, flexible learning practices.

Lastly, further research is needed to broaden the sample by including several higher education institutions and participants, thereby increasing the reliability and validity of the results. They can conduct longitudinal studies to measure the effects of flexible learning on learner agency and growth mindset over time. Other variables to study include institutional support, digital literacy, emotional intelligence, and learning environment factors.

Recommendations

The results of this study have serious implications for institutions of higher education, teachers, curriculum designers, and policymakers. First, the lack of connection between growth mindset and learner agency demonstrates that educational institutions should refrain from relying solely on mindset interventions to encourage independent learning. Learner agency requires careful structuring and nurturing through meaningful learning experiences, self-regulatory skills, and academic environments.

Second, the poor scores in stress management show that it is necessary to provide university students with adequate psycho-social support programs. While flexible learning environments enhance learner autonomy, they also increase stress and emotional overload in many students. Universities should consider offering programs to strengthen students' psychological health and develop resilience and emotional regulation skills.

Third, the study shows that it is crucial to implement learner agency in curriculum development. Reflective instruction, collaborative learning, scaffolding, planning, and self-evaluation are likely to foster learner independence. Such instructional techniques are especially important for learning in flexible and digital environments, where learner control is crucial.

From a policy perspective, learner agency development and psychosocial intervention strategies may be included in flexible learning policies and frameworks. The inclusion will ensure that issues of student well-being and holistic development, as well as academic continuity and technology use, are considered simultaneously.

Lastly, the findings provide insights into the existing literature on sustainable education by showing that the development of learner agency does not just rely on internal beliefs but is also influenced by external factors.

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