

# **SOCIAL STRUCTURAL FACTORS ON ACADEMIC OUTCOMES AND SATISFACTION IN ONLINE DISTANCE EDUCATION COURSES AMONG COLLEGE STUDENTS IN PANABO CITY**

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## **ABSTRACT**

This study assessed and determined the significant relationship between two variables: Social Structural Factors on Academic Outcomes and Satisfaction in Online Distance Education Courses. The study participants are college students, and researchers used quota sampling since the respondents are within Panabo City. This study used a correlational research design with proper statistical tools such as Anova, Shapiro-Wilk Test, and Wilcoxon Signed-Rank Test. The adapted research questions break down into the following parts: Demographic Profile of the Study, Social Structural Factors on Academic Outcomes, and Satisfaction in Online Distance Education Courses, which data hoarded through online Google Forms. In the result, the p-value is  $2.2e-16$  is less than the 0.05 significance level. Therefore, there is a significant difference between the Level of Social Structural Factors on Academic Outcomes and the Level of Satisfaction in Online Distance Education Courses. Hence, it shows that Social Structural on Academic Performance influences Satisfaction in Online Distance Education Courses.

**Keywords:** Social Structural Factors, Satisfaction in Online Distance Education Courses, Correlational Research, Panabo City.

## 1. INTRODUCTION

### 1.1 Background of the Study

The United Nations Education, Scientific, and Cultural Organization (UNESCO) have recognized that the coronavirus pandemic outbreak has impacted the education system in the world [1]. COVID-19 outbreak had a devastating impact on human life and shattered economies worldwide [2] with a massive jolt to the education systems in developed and developing countries. The COVID-19 pandemic quickly led to the closure of universities and colleges worldwide with government instructions to follow social distancing that could help flatten the infection curve and reduce total fatalities from the disease.

Moreover, the pandemic impacts various fields, one of which is the field of education [3]. Most universities tried to support teaching and learning activities during the pandemic to achieve effective online learning education. However, many university students in Korea expressed dissatisfaction with the quality of the online courses they took in 2020 [4].

Several researchers have suggested instructional strategies to improve the quality of online courses, which identify the possible factors associated with learning outcomes such as student satisfaction, perceived learning outcomes, and academic achievement [5] [6]. The existence of a pandemic impacts face-to-face learning and now has to turn online [7]. Of course, it impacts the implementation of learning, which will continue to depend on online digital technology. The change in the implementation of distance learning is challenging for both lecturers and students [8].

The thing that makes the difference is only in the aspect of intensity. Since the COVID-19 pandemic, online learning has become the leading choice without combining conventional face-to-face learning in the classroom. This situation certainly requires adjustments from various aspects, both students, lecturers, and other aspects related to the success of the learning process. Meanwhile, most countries worldwide, including the Philippines, have temporarily closed educational institutions to contain the spread of the COVID-19 pandemic and reduce infections [1].

This closure has affected more than 1.2 billion learners worldwide, with more than 28 million in the Philippines [1]. Responses like community lockdown and community quarantine of several countries have led students and teachers to study and work from home, leading to the delivery of online learning platforms [9]. However, implementing online learning posed different risks, problems, and challenges to teachers and students, especially in higher education institutions (HEIs) [10].

### 1.2 Theoretical framework

This study is attached to the theories of Walberg's Theory of Educational Productivity and Moore's Theory of Transactional Distance. These theories originated from Herbert J. Walberg and Michael G. Moore and were used to study social structural factors that affect students' academic performance and learning outcomes. Walberg's theory of educational productivity classified 11 influential domain variables that impact academic performance. Students' psychological characteristics and environment influence their learning outcomes [11].

Moore's theory of transactional distance bears direct influence in the current setting of blended learning modality used by educational institutions today. This theory insinuated an intangible psychological and communication space between the inputs of information delivered by the instructor and the input of information captured by the learner. This space holds potential misunderstandings and needs to be navigated [12]. As applied to the researcher's study, this theory holds that the researchers would expect their independent variable, Social Structural

Factors on Academic Outcomes, to influence or explain the dependent variable, Satisfaction in Online Distance Education Courses.

### 1.3 Conceptual Framework

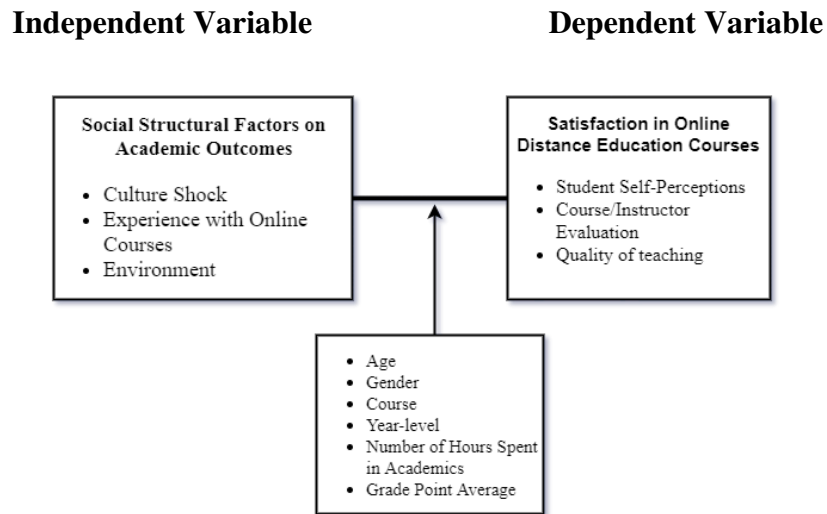


Figure 1: Conceptual Framework of the Study

The study's conceptual system appears in Figure 1. The chart delineates the affiliation between social auxiliary characteristics and fulfillment with independent online learning among Panabo City college understudies. The regular chart outlines how different investigation subjects are solved. The free variable is spoken to on the cleared out, with its signs to be examined and explored. The subordinate variable is expressed on the good side to see if there is a relationship or distinction between the two variables.

### 1.4 Research Questions

The main research question that guided this research study are:

RQ1. What is the demographic profile of the study participants in terms?

1.1 Age

1.2 Gender

1.3 Course

1.4 Year-Level

1.5 Number of Hours Spent in Academics

1.6 Grade Point Average

RQ2. What is the level of Social Structural factors on academic outcomes in terms of?

2.1 Culture Shock

2.2 Experience with Online class

2.3 Environment

RQ3. What is the level of Satisfaction in Online distance education courses?

- 3.1 Student Self-perception
- 3.2 Courses/Instructor Evaluation
- 3.3 Quality of Teaching

RQ4. Is there a significant difference in the level of Structural factors on academic outcomes when according to:

- 4.1 Age
- 4.2 Gender
- 4.3 Course
- 4.4 Year-Level
- 4.5 Number of Hours Spent in Academics
- 4.6 Grade Point Average

RQ5. Is there a significant difference in the Satisfaction in Online distance Education Courses when according to:

- 5.1 Age
- 5.2 Gender
- 5.3 Course
- 5.4 Year-Level
- 5.5 Number of Hours Spent in Academics
- 5.6 Grade Point Average

RQ6. Is there a significant difference in the level of Social Structural Factors on Academic Outcomes and the level of Satisfaction in Online Distance Education Courses?

### **1.5 Null Hypothesis**

Ho1. There is no significant difference in the level of social structural factors on academic outcomes when grouped according to

- a. Age
- b. Gender
- c. Course
- d. Year-Level
- e. Number of Hours Spent in Academics
- f. Grade Point Average

Ho2: There is no significant difference in the level of satisfaction in online distance education courses when grouped according to:

- a. Age
- b. Gender
- c. Course
- d. Year-Level
- e. Number of Hours Spent in Academics
- f. Grade Point Average

Ho3: There is no significant relationship in the level of social structural factors on academic outcomes and in the level of satisfaction in online distance education courses.

## 2. METHODOLOGY

This section will discuss how the researchers gather data from the respondents. The objective of directing a quantitative research study is to analyze the correlation between Social Structural Factors on Academic Outcomes and Satisfaction in Online Distance Education Courses among College Students. The point of correlational research is to portray how the researcher did the review and examined the information. This segment represents the strategy and cycles with the exploration configuration, research area, concentration on members, inspecting method, measurable treatment, information assortment methodology, research instrument, and moral contemplations.

### 2.1 Research Design

Figure 1 depicts the conceptual framework of this investigation. The graph depicts the association between social structural characteristics and satisfaction with online distance education among Panabo City college students. The usual graph depicts how various research topics are solved. The independent variable is represented on the left, with its signs to be discussed and investigated. The dependent variable is represented on the right side to see if there is a relationship or difference between the two variables.

Research design is the conceptual framework within which the study will be accompanying. It is the method by which a researcher organizes their research to find the answer to a question or solve a statement problem [14].

### 2.2 Research Locale

The researcher managed the study in Panabo, located between Davao and Tagum at scopes 125N to 44 "N, longitudes 7, 14", 7, and 23. This study classifies college undergraduates at unprecedented levels—moreover, the method of replying research questions on the chosen subject.

### 2.3 Participants of the Study

The respondents are college students from various schools, namely Davao del Norte State College, North Davao Colleges, University of Mindanao, Aces Polytechnic College, and NorthLink Technological College Panabo City. The researchers sent a Google Form link to students who chose and answered questions related to the study indicators. Also, the researchers utilized the following inclusion criteria:

1. The respondent must be a college student from an institution in Panabo City.
2. The respondents must be 18 years old and above.
3. The respondent must be willing to participate in this current study concerning ethical considerations.

The respondents were classified based on Age, Gender, course, year level, number of hours spent in academics, and GPA. The respondents give a set of survey questionnaires to complete.

### 2.4 Sampling Techniques

It is often infeasible to measure every individual or data point in a population [15]. Instead, researchers rely on samples. In this study, the researchers used Purposive Quota Sampling. This Non-Probability Sampling technique selects samples based on subjective judgment rather than random selection. The researchers used this sampling

technique because the researchers targeted 100 respondents. It has a moderating variable of Age, Gender, course, year level, number of hours spent in academics, and grade point average.

## 2.5 Statistical Treatments

All responses from the respondents' online survey questionnaires were tallied and tabulated. The researchers asked for help from the statistician to evaluate and interpret the results using the proper statistical tool. The researchers use.

1. Anova - used to compare and analyze the means of two variables. This statistical tool interprets and tests if the variables reject the null hypothesis or accept an alternative hypothesis.
2. Shapiro-Wilk Test - This statistical tool is worn to decide whether sample data were likely to have come from a normal distribution. However, sometimes the answer is still unclear, and it would be helpful to have a way to make a formal decision as to whether this is likely to be the case or not.
3. Wilcoxon Signed-Rank Test - This statistical tool is worn to compare two related samples, matched samples, or to conduct a paired difference test of repeated measurements on a single sample to assess whether their population means ranks differ.

## 2.6 Data Collection Procedure

The researchers utilized online overview surveys and Google Frame collaboration for information gathering. The analysts conveyed the studies by emailing the planning Respondents a connection to a web survey. The information was collected and organized, and the researcher endorsed a measurable investigation after regulating the study. The information elucidate utilizing factual strategies. The chosen respondents were college understudies from preferred college institutions in Panabo City.

## 2.7 Research Instrument

The research instruments used in this study are adapted questionnaires. To get the appropriate data needed, the researchers will have questionnaires with three main points; Social Structural Factors on Academic Outcomes, Satisfaction in Online Distance Education Courses, and the Demographic Profile of the respondents. Thus, the research questionnaire's primary goal is to collect information that will assist in answering the study's research questions.

## 2.8 Ethical Considerations

Throughout this study, there will be ethical issues and concerns that the researchers must consider to adequately fulfill the right to conduct a study with discretion and secrecy. The researchers will discern and follow complete study procedure assessments and standards conditions, primarily in population and data gathering and supervision, such as but not limited to:

Informed Assent. Analysts required an educated assent shape for the respondents' consent to enlist competent subjects within the consider—respondents' intentional association as informed assent.

COVID-19 Health and Safety Protocol. Consider this situation; The data gathering is executed through an online form to ensure there is no human contact. The rest will be that all data will be used and utilized only to complete this study.

Privacy and Confidentiality. All information collected by researchers will live treated with top solitariness and secretiveness. It stands assured that all data gathered will only be used to complete this analysis.

Literary theft. The perception will not demonstrate the mix-up of somebody else operating as a thief's own. This perception will go through a copyright infringement locator like Grammarly literary theft to maintain a strategic distance from this sort of thing.

Voluntary Participation. Respondents' voluntary participation in the study is critical. All research subjects freely chose to participate in the information-gathering process without pressure or coercion. Furthermore, respondents have the right to withdraw from the study without feeling obligated to continue.

Authorship. The study researchers are Davao Del Norte State College students taking the Bachelor of Science in Information System. The study's researchers undergo a sequence of revisions paper as advised and recommended by their adviser.

### 3. RESULTS AND DISCUSSIONS

This section analyzes and interprets the information accumulated based on the participants' responses in Panabo City. The introduction of the information stands organized within the taking after grouping: the Demographic Profile of the Study in Terms of Age, the Demographic Profile of the Study in Terms of Gender, the Demographic Profile of the Study in Terms of Year Level, the Demographic Profile of the Study in Terms of GPA, Level of Social Structural Factors on Academic Outcomes in Terms of Culture Shock, Level of Social Factors on Academic Outcomes in Terms of Culture Shock, Experience with Online Class, and Environment, Level of Satisfaction in Online Distance Education Courses, Level of Structural Factors on the Academic Outcome When According to the Age, Gender, Year-Level, and GPA, Significance Testing of Satisfaction in Online distance Education Courses in terms of Age, Gender, Year Level, and GPA, Significance Testing in the level of Social Structural Factors on Academic Outcomes and the level of Satisfaction in Online Distance Education Courses. The result stood derived from repetitive investigation utilizing correlational investigation.

#### Demographic Profile of the Study

Table 1. Demographic Profile Of The Study In Terms Of Age

Age	Frequency	Percentage
26-30 Years Old	1	0.88%
18-25 Years Old	112	98.25%
Below 18 Years Old	1	0.88%

Based on Table 1, the survey respondents are composed primarily between the ages of 26 to 30 years, and most respondents are 18-25 years old, with a percentage of 98.25% and below.

Table 2. Demographic Profile of The Study In Terms of Gender

Gender	Frequency	Percentage
Male	41	35.96%
Female	70	61.40%
Prefer not to say	3	2.63%

Based on Table 2, the survey respondents are composed of Gender, which is Male, Female, and Prefer, not to say the most respondents are Female with a percentage of 61.40%.

Table 3. Demographic Profile of The Study in Terms of Year Level

Year Level	Frequency	Percentage
First Year	17	14.91%
Second Year	39	34.21%
Third Year	29	25.44%
Fourth Year	29	25.44%

In Table 3, the study's demographic profile in terms of Gender shows that most of the respondents are in the second year, with a percentage of 34.21%.

Table 4. Demographic Profile of the Study Based on GPA

GPA	Frequency	Percentage
1.00 - 1.49	9	7.9%
1.50 - 1.99	36	31.58%
1.50 - 1.99, 2.00 - 2.49	1	0.88%
1.50 - 1.99, 2.00 - 2.49, 2.50 - 2.99	1	0.88%
2.00 - 2.49	44	38.6%
2.00 - 2.49, 2.50 - 2.99	2	1.75%
2.50 - 2.99	12	10.53%
3.00 - 3.49	4	3.51%
3.50 - 3.99	4	3.51%
4.00 or above	1	0.88%

In Table 4, the study's demographic profile based on the GPA shows that most respondents have a GPA of 2.00-2.49, 38.6%.

Level of Social Structural Factors on Academic Outcomes



Table 5. Interpretation of Mean Scores

Mean Score	Interpretation
1.00 - 1.80	Very Low
1.81 - 2.60	Low
2.61 - 3.20	Medium
3.21 - 4.20	High
4.21 - 5.00	Very High

Table 5 shows the Interpretation of Mean Scores. The following mean scores and interpretations discussed in the result: 1.00 to 1.80 mean score interpreted as Very Low, 1.81 to 2.60 mean score interpreted as Low, 2.61 to 3.20 mean score interpreted as Medium, 3.21 to 4.20 mean score interpreted as High, and 4.21 to 5.00 mean score interpreted as Very High.

Table 6. Summary Table of Level of Social Structural Factors on Academic Outcomes in terms of Culture Shock, Experience with Online Class, and Environment

	Weighted Mean	Standard Deviation
Culture Shock	3.563596	1.104979
Experience with Online Class	3.685965	1.02962
Environment	3.654971	1.124620

Tables 5 and 6 show the Summary Table of the Level of Social Structural Factors on Academic Outcomes. The mean of culture shock is 3.563596 with a standard deviation of 1.104979, which means that it has a high structure on academic performance in terms of culture shock—also, the mean of Experience with Online Class. Moreover, the environment has a mean of 3.65971 with a standard deviation of 1.124620. It means that it has a high social structure on academic performance regarding the environment.

#### Level of Satisfaction in Online Education Courses

Table 7. Summary Table of Level Satisfaction in Online Distance Education Courses

	Weighted Mean	Standard Deviation
Student Self-Perception	3.565789	1.127541
Courses/In Evaluation	3.706140	1.007973
Quality of Teaching	3.665965	1.047486

Based on Tables 5 and 7, the student self-perception has a mean of 3.565789 with a standard deviation of 1.127541, which means that it has a high level of satisfaction in online distance education courses in terms of Student Self-Perception. Also, the Courses/Instructor Evaluation has a mean of 3.706140 with a standard deviation of 1.007973. It means that it has a high level of satisfaction in online distance education courses in terms of Courses/Instructor Evaluation. Moreover, lastly, the quality of teaching has a mean of 3.665965 with a standard

deviation of 1.047486. It means that it has a high level of satisfaction in online distance education courses in terms of quality of teaching.

Significance Testing in the Level of Structural Factors on Academic Outcomes when according to Age, Gender, Year-Level, and GPA.

Table 8. Significance Level Of Structural Factors On Academic Outcomes According To Age, Gender, Year-Level, And GPA

	Df	Sum Sq	Mean Sq	F Value	Pr(>F)
Age	2	64	31.9	0.232	0.79314
Gender	5	1437	287.3	2.094	0.07277
Year Level	3	296	98.6	0.718	0.54337
GPA	8	3498	437.2	3.187	0.00303
Residuals	95	13033	137.2		

Table 8 shows the Significance Level of Structural Factors on Academic Outcomes according to Age, Gender, Year-Level, and GPA.

Since the p-value is  $0.79314 > 0.05$ , we do not reject the null hypothesis. Therefore, there is no significant difference in structural factors on academic outcomes when grouped according to age. It shows that a student's age does not influence the structural factors on academic outcomes.

Since the p-value is  $0.07277 > 0.05$ , we do not reject the null hypothesis. Therefore, there is no significant difference in structural factors on academic outcomes when grouped according to Gender. It shows that a student's Gender does not influence the structural factors on academic outcomes.

Since the p-value is  $0.54337 > 0.05$ , we do not reject the null hypothesis. Therefore, there is no significant difference in structural factors on academic outcomes when grouped according to year level. It shows that a student's year level does not influence the structural factors on academic outcomes.

Since the p-value is  $0.00303 < 0.05$ , we reject the null hypothesis. Therefore, there is a significant difference in structural factors on academic outcomes when grouped according to GPA. It shows that a student's GPA influences the structural factors on academic outcomes.

Therefore, only GPA has significant structural factors on academic outcomes since it has a p-value of less than 0.05 significance level.

Table 9. Significance Level of Satisfaction in Online Distance Education Courses in terms of Age, Gender, Year-Level, and GPA

	Df	Sum Sq	Mean sq	F Value	Pr(>F)
Age	2	370	185.1	0.450	0.63894
Gender	5	5220	1044.0	2.539	0.03344
Year	3	452	150.7	0.366	0.77744
GPA	8	9131	1141.4	2.766	0.00839
Residuals	95	39066	411.2		

Table 9 shows the Significance Level of Satisfaction in Online Distance Education Courses according to Age, Gender, Year-Level, and GPA.

Since the p-value is  $0.63894 > 0.05$ , we do not reject the null hypothesis. Therefore, there is no significant difference in satisfaction in online distance education courses when grouped according to age. It shows that a student's age does not influence the satisfaction in online distance education courses.

Since the p-value is  $0.03344 < 0.05$ , we reject the null hypothesis. Therefore, there is a significant difference in satisfaction in online distance education courses when grouped according to Gender. It shows that a student's Gender influences the satisfaction in online distance education courses.

Since the p-value is  $0.77744 > 0.05$ , we do not reject the null hypothesis. Therefore, there is no significant difference in satisfaction in online distance education courses when grouped according to year level. It shows that a student's year level does not influence the satisfaction in online distance education courses.

Since the p-value is  $0.00839 < 0.05$ , we reject the null hypothesis. Therefore, there is a significant difference in satisfaction in online distance education courses when grouped according to GPA. It shows that a student's GPA influences the satisfaction in online distance education courses.

Therefore, Gender and GPA have been significant to the Level of Satisfaction in Online Distance Education Courses since it has a p-value that is less than 0.05 significance level.

Significance Testing in the level of Social Structural Factors on Academic Outcomes and the level of Satisfaction in Online Distance Education Courses

Table 10. Shapiro-Wilk Test on Level of Social Structural Factors on Academic Outcomes and Level of Satisfaction in Online Distance Education Courses

Shapiro - Wilk Normality Test		
	W	p-value
Data 1	0.94123	8.021e-05
Data 2	0.92081	4.483E-06

Table 10 shows that the information is not by and large designated since the p-value is less than 0.05. Consequently, we have to utilize a nonparametric identical to the t-test, the Wilcoxon Signed-Rank Test.

Table 11. Significance Level of Social Structural Factors on Academic Outcomes and Level of Satisfaction in Online Distance Education Courses by Wilcoxon Signed-Rank Test

Wilcoxon Signed-Rank Test Data1, Data2, $\mu = 0$		
Wilcoxon rank-sum test with continuity correction		
	W	
Data 1 and 2	1344	p-value $< 2.2e-16$
Alternative hypothesis: true location shift is not equal to 0.		

Table 11 shows that the p-value is  $2.2e-16 < 0.05$  significance level; therefore, there is a significant difference between the Level of Social Structural Factors on Academic Outcomes and the Level of Satisfaction in Online Distance Education Courses.

## 4. CONCLUSIONS AND RECOMMENDATIONS

In this study, the researcher discussed the significant relationship between the Social Structural Factors on Academic Outcomes and the Level of Satisfaction in Online Distance Education Courses in Panabo City. The results of the research questions were tabulated and summarized with the following conclusions and recommendations stated below:

### 4.1 Conclusions

Based on the result of this research study, the conclusions are as stated below:

For RQ1, it describes the Demographic Profile of the respondents of the study. Results showed the majority of respondents in terms of age is 18-25 years old, while in terms of Gender is Female; also, the majority of respondents in terms of Year Level are second-year students, and in terms of GPA, the majority of the respondents have 2.00-2.49. RQ2 is about the level of Social Structural Factors on Academic Outcomes in the three terms: Culture Shock, Experience with Online Class, and Environment. The overall result indicates a high level of Social Structural Factors on Academic Outcomes in the three terms, proving significant. Meanwhile, RQ3 is about the level of Satisfaction in Online Distance Education courses in terms of the three indicators: Student Self-perception, Courses/Instructor evaluation, and Quality of Teaching. The study found a high level of Satisfaction in Online Distance Education in terms of three indicators contributing to the Social Structural Factors on Academic Outcomes. RQ 4 is about finding the significance level of Structural Factors on Academic Outcomes according to Age, Gender, Year-Level, and GPA. The result shows that only GPA has significant Structural Factors on Academic Outcomes since it has a p-value of less than 0.05 significance level. While RQ 5 is about finding the Significance Level of Satisfaction in Online Distance Education Courses in terms of Age, Gender, Year-Level, and GPA. The result shows that Gender and GPA have been significant to the Level of Satisfaction in Online Distance Education Courses.

Furthermore, lastly, the research question about determining a relationship between Social Structural Factors on Academic Outcomes and Satisfaction in Online Distance Education Courses Study. Therefore, it concluded that there is a significant difference between the Level of Social Structural Factors on Academic Outcomes and the Level of Satisfaction in Online Distance Education Courses. Hence, it shows that Social Structural on Academic Performance influences Satisfaction in Online Distance Education Courses.

### 4.2 Recommendations

This study yielded results that reflect the responses of the study's participants, The implications are as follows: First, it will suggest instructional ideas for improving the quality of online courses by identifying the possible components that influence academic achievement.

Second, the researchers suggest enhancing environmental status to make the students comfortable and satisfied in teaching online courses.

Third, implement orientations in online teaching methods and make adjustments since students are experiencing Covid-19 Pandemic.

For students, students must participate and attend to new online learning strategies and support online education courses.

For future researchers, the researchers recommend finding and conducting more research in different areas and locations connected to social structural factors on academic performance and online distance education courses. Also, this research can be a reference for future investigation and research purposes.

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