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Doctoral Thesis

Title:

Academic Achievement & Readiness for self – directed learning in online environments

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Abstract

Background: Readiness for self-directed online learning refers to a person's capacity and readiness to participate in independent learning activities in an online environment. Self-directed learning comprises taking responsibility for one's learning process, including creating objectives, locating materials, and tracking progress without continual supervision from teachers. In an online setting, preparing for self-directed learning includes computer literacy skills, time management ability, self-discipline, and desire to succeed in virtual learning environments.

Objective: The study goal's is to examine the academic achievements and readiness of online learning by own self in an online environment. To deeply explore the perception of students of different courses about self-directed online learning.

Methodology: A qualitative content analysis method uses for examine academic achievements and readiness of self-directed online learning in an online environment. In this context, a cognitive theory was used to explore the academic achievements and readiness of self-directed online learning in an online environment. Data was collected through stratified sampling from google scholar portal.

Result: The content analysis narrates the Academic accomplishment and preparation for self-directed learning in an online setting are inextricably linked, with the relationship altering between educational levels.

Conclusion: Using Cognitive Learning Theory reveals a deeper depth. Academic achievement is frequently associated with preparation for self-directed learning in online contexts, however this relationship may be less obvious in lower education. Challenges include a lack of physical classrooms, technical obstacles, time management difficulties, and intrinsic motivation.

TABLE OF CONTENTS

Abstract.....1

CHAPTER I: INTRODUCTION

1.1 Problem Status.....6

1.2 Purpose of Study.....7

1.3 Research Question.....8

1.4 Theoretical Framework……..9

1.5 Operational Definition

1.5.1 Academic Achievement……...……...10

1.5.2 Online Learning……..10

1.5.3 Self-Directed Learning… ……..…10

1.5.4 Online Environment……...11

CHAPTER II: LITERATURE REVIEW

CHAPTER III: METHODOLOGY

3.1 Research Question…….16

3.2 Data Collection……..16

3.3 Credibility and Trustworthiness……18

3.4 Data Analysis……18

CHAPTER IV: FINDING OF STUDY

4.1 Descriptive of content ……..24

4.2 Section I…….24

4.1.1 Theme I……..26

4.1.2 Theme II……28

4.1.3 Theme III……29

4.3 Section 2……..29

4.4 Summery of Finding……32

CHAPTER V: DISCUSSION

5.1 Analysis of Finding……..34

5.2 Conclusion……35

5.3 Limitation of Study……..36
5.4 Implication of Study…….37
5.5 Future Recommendation…….…..….38
REFERENCES

CHAPTER I: INTRODCUTION

In today's quickly changing educational world, the capacity to achieve academically and thrive in self-directed learning settings is critical. As technology continues to transform how people access information and engage with educational materials, online learning has developed as a dynamic platform that provides unprecedented flexibility and accessibility. Within this environment, my academic achievements and willingness for self-directed learning stand out, establishing me as a motivated and adaptive learner capable of excelling in the digital sphere. Rapid changes in lifestyle and culture, society, politics, and industry highlight the importance of independent learning for adults as well as kids. The information era presents significant hurdles for learners to keep up with the vast amount of knowledge and practical applications of technological advancements. Furthermore, the challenge of anticipating future changes due to information explosion can leave learners unprepared to meet their needs. Formal education and training are no longer effective in preparing learners for future learning opportunities (Alotaibi, p. 4).

Specify that students should have learner control, self-directed learning, and motivation. Prospective teachers must be skilled in information and communication technology. To address the needs of future learners, educators should be prepared to incorporate technology and teach online, according to another study. Teachers who are not prepared for online learning may struggle to provide adequate support to learners. Prospective teachers are required to graduate prepared for online learning during their teacher training (Karatas & Arpaci,2020,p.2).

Over the past decade, online courses and programs have become increasingly popular in higher education. In 2005, the Sloan organization reported that 56 percent of higher learning institutions see online education as a key long-range expansion strategy. There are various reasons why online education is popular among students and university officials. Online courses serve students with full-time jobs and busy lives, rural students who may not have access to education in their area, and students who want to work, study, and meet on their own time. Additionally, online courses free up classroom space and solve parking problems (MEAD, 2011).

According to (Wang et al, 2020, p.131) , online platforms can promote independent learning, participation, and innovation. Traditional classroom arrangements limit students' ability to explore complicated ideas and perform creatively. According to their theory, open-ended, technology-rich learning environments allow pupils to structure their thinking, which is crucial for creativity. The online environment can enhance learning, but it can also hinder creativity if pupils lack the necessary language skills. Studies have examined the impact of specification and description language methods on creative creativity. Research indicates that online learning environments are more effective than traditional classrooms in promoting standard definitions and encouraging innovative thinking among

students. Theoretical research on the development of creativity through classification and description of linguistic environments is insufficient. Providing an online self-directed learning environment in schools can help pupils develop creativity during the learning process.

Effectiveness of Learning on their own in Online Environment

Learning has been a crucial part of human growth for generations, despite its complexity. Over the past years, study in psychology and education has led to varied perspectives on learning. The most common views are behavioral, cognitive, human, social learning (observational learning), and constructive. Various learning paradigms have emerged from these approaches, such as behaviorism, cognitivism, humanism, social learning theory, and constructivism. These paradigms have resulted in the development of many learning theories (Conradie, 2014, p. 254).

Research shows that most adults participate in learning projects throughout the year. His ongoing studies in Specification and Description Language offer significant recommendations for increasing SDL in institutions and group settings. SDL was initially viewed as a linear and continuum model, but later research expanded to include interactive and instructional models to better understand the process of learning. SDL study identifies self-direction as a personal characteristic of learners. According to a study, learners who take responsibility for their own learning tend to prioritize resource usage, method use, and motivation (El-Gayar, 2014).

The increased usage of digital communication has offered numerous chances for e-learning. Over the world wide web medical students can now benefit from interactive education provided by teachers. The development of medical education courses is influenced by students' 24/7 availability to educational services and information, as well as the ability to learn according to your needs.

1.1 PROBLEM OF STATEMENT

The qualitative study to explore the academic achievement and readiness for self-directed learning in an online setting. Regarding the increasing acceptance of online education, there is still an urgent need to investigate and address issues linked to promoting academic accomplishment and promoting self-directed online learning in this digital context. The issue statement aims to identify obstacles gaps, and possibilities for improving the efficacy of online education platforms in cultivating academic excellence and empowering students to take control of their learning experience. To explore the impact of specific online learning interventions on academic achievement and readiness for self-directed learning among students in an online educational environment. Prior study has demonstrated that significant degrees of self-direction are required for effective online learning. The current study intends to investigate the obstacles and barriers to self-directed learning in an online setting.

1.2 PURPOSE OF STUDY

The study goal's is to investigate the online learning in academic achievement in an online environment. Online learning has becoming increasingly popular in today's educational landscape. With technological advancements and extensive internet access, online platforms have changed the way consumers interact with instructional content. To succeed in such an atmosphere, students must first understand the goal of their studies in terms of academic achievement, and then nurture the preparedness for self-directed learning. Academic success is predicated on a core concept of purpose. Students who recognize the value of their studies are more likely to be dedicated, hardworking, and persistent in their academic pursuits. In an online setting where interruptions are often and self-discipline is crucial, goal clarity acts as an indicator. Whether it's gathering knowledge for personal development, achieving career objectives, or fulfilling academic obligations,In addition, the purpose of study extends beyond academic performance to holistic development and lifetime learning. Students in an online setting can learn a variety of skills that are not possible in traditional classrooms. They can enhance their critical thinking, communication, and technology abilities by engaging with a range of materials, collaborative projects, and interactive forums. Recognizing the various purposes of study enables students to approach their education with intention, viewing it as a journey of self-discovery and growth rather than a series of assigned tasks.

1.3 RESEARCH QUESTION

1: How does academic achievement correlate with readiness for self-directed learning in an online environment among educational level?

2: What challenges and barriers are faced in self-directed learning in an online environment?

3: What needs of self-directed learning in an online environment among educational level?

1.4 THEORETICAL FRAMEWORK

For the purpose of this study, a cognitive learning theory was used. This theory posits that learning occurs through observation, imitation, and modeling of behaviors. In the context of online environments, students may observe peers or instructors engaging in self-directed learning behaviors, which can influence their own readiness for self-directed learning and academic achievement. A qualitative content analysis approach was employed on this research study. Through content analysis method investigate the impacts and challenges for self-directed learning in online environment. The former approach understanding by thinking is heavily influenced by the learning theory of cognitive development. Because of its nature, where time and space frequently separate instructors and learners, the cognitive process is much more vital in eLearning (Arshavskiy, 2021).

1.5 OPERATIONAL DEFINITION

1.5.1: Academic Achievement

The quantifiable results or successes that students achieve as a result of their formal educational experiences are called academic achievement. These accomplishments often involve the mastery or exhibition of knowledge, skills, and competencies across several courses or disciplines, as well as the effective completion of academic tasks such as tests, assignments, projects, and assessments. Academic achievement can be measured objectively using grades, test scores, performance assessments, and completion rates, and it serves as an indicator of a student's overall academic development, success, and proficiency in the educational system.

1.5.2 Online Learning

Online learning, often known as virtual learning, is the transmission of educational content and teaching using digital technology and the Internet. It allows students to access educational resources, participate in interactive activities, and engage in learning experiences remotely, eliminating the requirement for physical presence in a typical classroom setting. Online learning can take many forms, including fully online courses, hybrid or blended learning models that combine online and face-to-face education, and extra online resources to assist traditional classroom learning.

Lectures, readings, multimedia resources, and assignments are all available in digital format and can be accessed through online learning management systems. Online learning frequently improves communication and collaboration between students and instructors by utilizing digital communication technologies such as discussion forums, email, video conferencing, and instant messaging. Online learning provides flexibility in terms of time and place, allowing students to interact with course materials and complete tasks at their own speed and from anywhere with an internet connection. Quizzes, simulations, virtual labs, and multimedia presentations are common interactive features used in online courses to increase participation and promote active learning.

1.5.3: Self-Directed Learning

Self-directed education is how individuals control their learning objectives, techniques, and progress. Self-directed learning is when students actively seek out and engage with learning opportunities based on their interests, needs, and motivations, rather than relying solely on external instruction or guidance from teachers or instructors. Learners can pick what, where, and how they receive knowledge and set their own learning objectives and goals. Self-directed learners are accountable for monitoring and regulating their learning process, which includes planning, organizing, and evaluating their learning activities and progress. Intrinsic motivation is often used to drive self-directed learning, which derives from a genuine interest in the subject, personal goals, or a desire for self-improvement and growth.

1.5.4: Online Environment

An online environment is a virtual field or platform in which interactions, activity, and communication take place primarily via the Internet. It encompasses a wide range of online platforms, websites, applications, and virtual settings that facilitate various forms of online involvement, cooperation, and knowledge exchange.

CHAPTER II: LITERATURE REVIEW

Research indicates that establishing self-directed skills in online learners is critical for increasing educational outcomes and academic achievement. A study discovered that self-directed study is critical in adult educational programs and online education. Adult education attempts to foster independent learning as a process that produces positive learning results. Fostering self-directed learning abilities is regarded as vital in modern education, particularly in adult education and online learning. This technique emphasizes empowering students to take control of their educational journey, which leads to improved learning outcomes. Self-directed learning entails accepting responsibility for one's learning process, such as setting objectives, locating resources, and evaluating progress.

The study emphasizes the intrinsic relationship between self-directed learning and educational efficacy. It implies that when people actively engage in self-directed learning methods, they are more motivated, autonomous, and effective in their academic efforts. Furthermore, self-directed learners are better able to adapt to different learning settings and traverse the complexity of virtual education (Kohan et al., 2017, p. 117).

Online learning is a rapidly developing trend in educational technology. By the 2006-2007 academic year, 61% of US higher learning institutions provided online courses. In autumn 2008, approximately 4.6 million students, or more than 25% of all U.S. higher education students, took at least one online course. In 2007, the American Society for Training and Development reported that over 33% of corporate training was given online, nearly tripling the proportion from 2000 (Means et al., 2013, p. 2). Educational technologists consider the Internet not only as a distribution medium but also as a possible tool for improving the quality of educational experiences and outcomes. One popular belief is that effective learning of a complex body of knowledge necessitates a community of learners and that online technology can be used to expand and support such communities, supporting "participatory" educational approaches. A common belief in this field is that understanding complex subjects requires a community of learners, and online technology can help to widen and strengthen such communities, arguing for "participatory" teaching approaches.

In online education contexts, environmental factors such as online or offline interactions play an important role in shaping the communicative atmosphere. These characteristics not only improve information sharing among learners, but also allow them to develop successful ways for acquiring vital knowledge. Furthermore, satisfaction with the learning environment influences learners' perceptions of the technology employed, potentially improving their participation in the learning processes. Furthermore, learner satisfaction with the e-learning environment can have a substantial impact on their attitudes toward technology and desire to actively participate in learning activities. A positive user experience, defined by user-friendly interfaces, fluid navigation, and responsive support services, gives learners comfort and confidence. This, in turn, may improve their motivation to use educational technology

and actively participate in course content. E-learning environments also make it easier for students and instructors to share their expertise and experiences.

Participants can express their unique viewpoints and ideas through a variety of educational activities, such as conversations, group assignments, and presentations with multimedia. This active interaction not only enhances the educational process, but it also develops a sense of community and shared learning goals. (Liaw, 2008, p. 865).

The implementation of information technology to promote learning is rapidly gaining acceptance, thanks in part to the need to reduce time-to-competency in the knowledge-based economy. This growth is being driven by growing competition and globalization issues, which are prompting businesses to seek innovative solutions to ensure rapid skill acquisition among employees and business partners. In today's fast-changing economy, characterized by rapid technological developments and turbulent market conditions, the ability to adapt and acquire new skills quickly is crucial. Companies recognize the necessity of providing their employees and partners with the most current information and abilities in order to remain competitive and fulfill changing market demands. The rapidly evolving field of information technology offers an abundance of tools and platforms that make learning and skill development affordable and efficient. These innovations, which include online classes, virtual classrooms, interactive simulations, and mobile learning apps, provide flexible and accessible training and development options. Furthermore, the flexibility and reach of digital learning solutions enable businesses to train geographically diverse audiences while preserving consistency and standards across several locations. The imperative to reduce time-to-competency emphasizes the significance of accelerating the learning process while maintaining efficacy. Organizations can employ information technologies to speed up training programs, maximize learning resources, and personalize learning experiences to individual learners' specific needs and learning styles (Zhang et al. , 2006, p. 15).

Learning via the Internet provides freedom and access for students who are unable to attend traditional educational activities due to time constraints, location, or competing obligations. The immediate Virtual Teaching system supported an individual-centered approach to education, allowing for tailored feedback, such as quizzes, as well as repeating videos or modules to meet specific learning needs. One of the most significant advantages of studying online is its adaptability, which allows students to interact with educational information at their own pace and convenience. Unlike traditional classroom environments, which have set times and locations, online courses allow students to access learning materials and participate in activities from anywhere with an internet connection. This flexibility is especially advantageous for adult learners, working professionals, and caregivers who may find it difficult to adhere to regular classes.

The students can interact with multimedia materials, take part in online discussions, and work together with peers in online settings to create an interactive and engaging learning experience. The chance to repeat lectures, videos, or courses allows students to build on their understanding of ideas and satisfy particular learning requirements, resulting in increased retention and comprehension of material (MacNeil et al., 2020,p.5).

Using the Internet in courses can boost student participation and enthusiasm, improve employment skills, and provide chances for critical study of current data and policies. Furthermore, they imply that using the Internet enhances faculty-student contact and knowledge sharing (Lage et al., 2000). Students can expand their learning experience by using online resources to conduct critical analyses of current facts and policy. Furthermore, the use of the Internet encourages greater engagement and knowledge sharing between staff and students, thereby improving the educational process. Overall, incorporating the Internet into classes provides numerous benefits that help to create a more engaging and successful learning environment. Negative emotions including stress, worry, and rage reduce pupils' sense of control over their learning. Successful learners build positive self-efficacy beliefs, allowing them to effectively manage negative states. In virtual learning, students must quickly acclimate to a new environment, making self-efficacy a key factor (Teng & Wu,2021).

Digital technologies are crucial for in-service and continuous learning to meet individual and corporate learning needs and adapt to changing societal and professional demands (Mkunde, 2019). It underlines the value of using digital tools to adapt to changing societal and professional needs. In today's rapid and unpredictable world, digital technologies play a critical role in allowing individuals and companies to stay current, learn new skills, and compete. Individuals can engage in lifelong learning initiatives targeted to their personal requirements by leveraging digital platforms and resources, while organizations can ensure that their workforce is continuously developed to meet the demands of the modern era. Overall, incorporating digital technologies into learning activities is critical for developing flexibility, development, and achievement in an ever-changing environment.

Discussion boards on the web are valuable virtual platforms for educators and students alike, promoting engagement and information exchange in both traditional and online learning environments. These forums promote involvement through open dialogue, inquiry, resource sharing, and collaborative projects, extending the learning experience beyond the classroom. Forums use participatory enhancement to extend learning opportunities beyond regular class times, allowing members to engage in individual reflection and study to further their comprehension of subjects. Alongside supporting traditional and concurrent online lectures, chat rooms promote interaction and cooperation among students from various geographic regions enrolled in online courses. This promotes social connectedness and cultivates a feeling of community among learners who might otherwise feel lonely in the virtual. Participants

can add relevant materials, such as essays, films, and websites, to supplement course material and expand learning opportunities. This collaborative strategy enables for the exploration of multiple perspectives and resources, which improves the learning experience.

Forums empower students to work together on projects and assignments, promoting teamwork and peer learning. Working together to solve problems and complete projects allows participants to develop critical thinking skills while also enhancing their ability to communicate and interact effectively in a virtual setting. Discussion forums offer members scheduling and accessibility flexibility, allowing them to join in discussions when it is most convenient for them. This accommodates a variety of schedules and time zones, allowing students to participate in discussions and contribute to the learning community regardless of their location (Masters et al, 2021)..

CHAPTER III: METHODOLOGY

The study's goal was to investigate people's perceptions and experiences with online learning in terms of academic achievement. Online learning has becoming increasingly popular in today's educational landscape. An acceptable theory was employed to understand the concept of online learning in relation to the literature. Using the cognitive learning theory framework and a content analysis approach, this study studied scholarly peer-reviewed literature from Google Scholar portals to gain a deeper knowledge of previously completed work.

This report draws from a selected peer-reviewed articles regarding online learning in academic achievement in an online environment taking from google scholar and PubMed research portals. More than 5 articles related to online learning includes A Gateway to Creating an Inclusive Learning Environment, Assessing the impact of interactive video on learning effectiveness, investigating students' perceived satisfaction, behavioral intention, and effectiveness of e-learning, Perception of Young Adults in Higher Education, and An Investigation of Learners' Perceived Progress During Online Education: Do Self-Efficacy Belief, Language Learning Motivation, and Metacognitive Strategies Matter taking from Google scholar which is widely use portals for research articles. Two articles were taken includes Self-Directed Learning in Medical Education: Training for a Lifetime of Discovery and Self-directed learning assessment practices in undergraduate health professions education: a systematic review from PubMed.

The project is constituted by a content analysis of academic achievements and self-directed learning in online environment. The conceptual design of the project aimed to investigate or explore the range of perception that predominate the coverage of the academic achievements in online environment. In doing so, this study has gathered articles to answering the three mains questions of this thesis.

To achieve the goal of this investigation, a content analysis methodology was applied. According to **(Neuendorf, 2017)**, content analysis is the methodical, quantitative, and objective examination of a message's attributes.

With the use of content analysis, researchers can examine people's communications to gain an indirect understanding of their behavior. It is exactly what its name suggests: an examination of a communication's typically textual, but not always, written contents. The contents of almost every kind of communication, including textbooks, essays, novels, magazines, recipes, songs, political speeches, ads, and images, can be examined. Conscious and unconscious attitudes, values, beliefs, and ideas of an individual or group are frequently exposed in their conversations. The methodology of content analysis is frequently combined with other approaches, especially in medieval and cultural studies. It can be applied in any situation where the researcher needs a way to organize and, frequently, quantify data. It is quite helpful for assessing data from interviews and observations **(Fraenkel & Wallen, 1996: 479)**.

This study used a content analysis. The qualitative component allowed the researcher to hear the participants' voices through the author's perceptions. Using a content analysis methodology, the researcher was able to investigate participant behavior and experiences without influencing them **(Babbie, 2004).**

3.1 RESEARCH QUESTION

1: How does academic achievement correlate with readiness for self-directed learning in an online environment among educational level?

2: What challenges and barriers are faced in self-directed learning in an online environment?

3: What needs of self-directed learning in an online environment among educational level?

3.2 DATA COLLECTION

For this study, total 7 research articles collected from google scholar and PubMed portals. The initial search utilizing perception of people about self-directed or online learning. Five research articles highlighted the investigates ways for promoting inclusivity in educational settings, emphasizing the significance of meeting varied learning needs and creating supportive situations in which all students may thrive, examines the impact of interactive video as an educational tool on student learning outcomes and engagement, Perceived Satisfaction, Behavioral Intention, and the Effectiveness of E-Learning and investigates the views of young adults enrolled in higher education institutions, probing their attitudes, beliefs, and experiences connected to many components of the learning environment. Other 2 research articles highlighted the explores the significance of self-directed learning (SDL) in medical education and investigates assessment practices related to self-directed learning (SDL) in undergraduate health professions education.

To validate each research study met the criteria, performed a manual review that allowed me to determine the research literature was met the criteria for inclusion. Total 6 research articles were selected in which 5 from google scholar and 1 from PubMed portal. for the study by stratified purposive sampling. Only 4 research articles were included in this study and rest of 3 was excluded because they are out of our selected criteria. Data collection sources presents in table (see Figure 1) that includes 5 columns: Source, Title of articles, Author name, Published year, and type.

Source	Title of article	Author Name	Type	Published Year
Google Scholar	Perception of Young Adults in Higher Education: A Case Study of Caribbean Students in the Online Learning Environment	**Denise Greaves**	Dissertation/Thesis	June, 2019
	A Gateway to Creating an Inclusive Learning Environment	**Maureen J. Lage, Glenn J. Platt, and Michael Treglia**	Article	22 March, 2015
	Instructional video in e-learning: Assessing the impact of interactive video on learning effectiveness	**Dongsong Zhang a,*, Lina Zhou a , Robert O. Briggs b,c,d , Jay F. Nunamaker Jr**	Article	28 March, 2008
	Investigating students' perceived satisfaction, behavioral intention, and effectiveness of e-learning: A case study of the Blackboard system	**Shu-Sheng Liaw**	Article	04 September, 2007
PubMed	Self-directed learning assessment practices in undergraduate health professions education: a systematic review	**Tracey A H Taylor Kyeorda Kemp Misa Mi Sarah Lerchenfeldt**	Article	December, 2021

3.3 CREDIBILITY AND TRUSTWORTHINESS

Relying on a single way of verification would not adequately expound on the interwoven and shared phenomena; therefore, the researcher used one more coder to assure thoroughness of the approach and trustworthy interpretation of data **(Patton, 2002).** Triangulation is a technique used in qualitative research to ensure and maintain the credibility of the data. Multiple data sources are leveraged to generate comprehensive and compelling themes. **(Lincoln &Guba, 1985)**. Triangulation was implemented in this study utilizing different ways, including: (a) data coding, (b) recording notes, and (c) evaluating data with an extra coder. **(Creswell, 2007; Patton, 2002).**

3.4 DATA ANALYSIS

Google Scholar was utilized because they are widely available, searchable academic databases that provided access to a variety of research articles. The data analysis process took place over the course of a two-week span, in which analyze 7 journal article regarding self-directed and online learning in online environment to deeply understand the experience ad meaning of academic achievement and self-directed learning. Research article was deeply examining and make a method Metrix to understand how objective are handled by purposed method. Method Metrix consist of total 6 columns which covered with six main points: Research question, Statement, categories, Themes, Data analysis tool, analytical frame work. For Method Metrix **(see Figure 2).** A coding form was developed in which manual coding of selected statement done. After coding, categories were extracted from developed coding and generate themes accordingly. A coding form consist of total two Column one is statements and second is coding Column **(See ANNEXURE-1).**

ANNEXURE-1

Statements	Coding

FIGURE 2: MATRIX METHOD

RESEARCH QUESTION	STATEMENTS	CATEGORY	THEMES	DATA ANALYSIS TOOL	ANALYTICAL FRAMEWORK
How does academic achievement correlate with readiness for self-directed learning in an online environment among educational level?	"Online classes allow students the flexibility to access class any time or day." "I prefer online classes because of the convenience and flexibility." "Online classes are flexible and allows the student to work at the student's own pace." 1]earning styles are like being left- or right-handed. Both hands can perform the task, but one has more practice. There is no justification for teaching introductory economics so that it appeals only to those who are more proficient in a particular learning style, as is often done I prefer this classroom format to a traditional lecture," "I would prefer to take Principles of Macro with this type	**Flexibility and Convenience of Online Classes** **Effectiveness of Alternative Classroom Formats** **Benefits of Collaborative Learning** **Positive Feedback and Learning Experience**	**Theme 1: Transformative Learning Experiences**	Content Analysis of four research articles related to self-directed online learning in online environment	Critical Discourse analysis : categories will be sorted from statements given by students in a research article.

	of classroom format," and "I believe that I learned more economics with this classroom format" "enjoyed working in groups," and "learned a lot working in groups, in class," I enjoyed this class very much. I learned more than I ever thought I would in a new, creative, and inspiring way. I encourage this class to be continued in the same way. The instructor might have made my decision easier to major in Econ! Thanks! The experiments were effective in helping me understand the material. I felt I learned a lot from this class. The video lectures were really good in helping me with the chapters too. I really liked the demonstrations and the group work-they helped me to really see the concepts, much better than a lecture would, and I could				

	better visualize something I'd seen rather than heard-that was a big plus for tests. As for the class itself, I loved the way it was run! The groups were very effectiveit helped to have your peers explain things to you in a different way that sometimes made more sense. Also, it was easier to get to know your classmates and made for a very comfortable environment. I liked the "hands on" approach. I really enjoyed the class setup and structure. I was a little nervous after the first day of class when we talked about how much responsibility is required for this class,				
What challenges and barriers are faced in self-directed learning in an online environment?	"Sometimes it takes two to three days to get a response from instructors." "Students would reach out to a lecturer and the response time	**Instructor Responsiveness Clarity and Structure of Course Materials**	**Theme 2: Enhancing Communication and Course Clarity**	Content Analysis of four research articles related to self-directed online learning in	Critical Discourse analysis : categories will be sorted from statements

	would be slow or lecturers do not respond at all." "Classes are not always easy to follow based on how the facilitator structures the platform, and some classes have grammatical mistakes."			online environment	given by students in a research article.
What needs of self-directed learning in an online environment among educational level?	"Tutors are easy to reach. When students have a problem, the student can set up a one-on-one with the instructor." "Student is able to learn material because of the ability to listen and visualize." "Much more engaging and interactive. Lectures see where each student is and respond to the student's needs." "I would prefer some classes are on-ground, science, math, statistics since these courses need more explanation than reading."	**Ease of Access to Tutors** **Enhanced Learning Experience** **Preference for On-Ground Classes in Certain Subjects**	**Optimizing Learning Environments**	Content Analysis of four research articles related to self-directed online learning in online environment	Critical Discourse analysis : categories will be sorted from statements given by students in a research article.

During the first week of the coding process, I chose four printed papers from Google Scholar that fit the delimitations set. Second, undertake a close reading of each selected article for the first time to ensure inclusion. The coding form was used to code data from selected articles during a final and second reading, which was then led by the cognitive learning theory framework, allowing us to investigate students' meaning and experience with self-directed online learning in an online setting. Three major concepts were developed: (1) Transform learning experiences, (2) Improve communication and course clarity, and (3) Optimize learning environments.

CHAPTER IV: FINDING OF STUDY

The goal of this study is to look at the various perspectives, sentences, attitudes, and interactions of different students who are participating in or have been influenced by self-directed online learning in an online environment. Using the cognitive learning theory framework and content analysis approach, this study investigated four research articles collected from Google Scholar databases that articulated students' experiences and statements about self-directed online learning.

More specifically, this study sought to address three major research questions:

1: How does academic achievement correlate with readiness for self-directed learning in an online environment among educational level?

2: What challenges and barriers are faced in self-directed learning in an online environment?

3: What needs of self-directed learning in an online environment among educational level?

Chapter IV is organized into two sections. First, it shows the results of a content analysis of research publications. Second, the research questions have been answered. The research question is replied with appropriate quotes that validate and support the themes discovered and observed in the text, as well as the researcher's analysis.

4.1 DESCRIPTION OF CONTENT

We obtained a combination of 4 research articles. As part of the data assessment process, reviewed the content of each study piece to ensure that all limits were met.

SECTION I

In the first section, content analysis was done on selected research articles which are published in different time period. In these research articles students of different subjects shared their points regarding self-directed online learning. Through content analysis we make categories from statements given by students then merged these categories into themes.

Three main theme were generated by using deductive approach. These themes are regarding (1) Transformation learning experiences, (2) Enhance communication and course clarity, (3) Optimizing learning environments. The first theme was generated from multiples statements which was given by students of different subject while researchers asking them about the Perception of Young Adults in Higher Education: A Case Study of Caribbean Students in the Online Learning Environment to understand how student’s, explain online learning experience.

4.1.1 THEME 1: TRANSFORMATION LEARNING EXPERIENCES

"Online classes allow students the flexibility to access class any time or day."
"I prefer online classes because of the convenience and flexibility." "Online classes are flexible and allows the student to work at the student's own pace."
1earning styles are like being left- or right-handed. Both hands can perform the task, but one has more practice. There is no justification for teaching introductory economics so that it appeals only to those who are more proficient in a particular learning style, as is often done
I prefer this classroom format to a traditional lecture," "I would prefer to take Principles of Macro with this type of classroom format," and "I believe that I learned more economics with this classroom format"

Students benefit greatly from online classes since they may access course materials whenever they want, regardless of time or day. Many people like the flexibility of online learning and the ability to work at their own pace. Furthermore, some prefer alternative classroom formats to traditional lectures, citing improved learning outcomes and increased involvement. This underlines the importance of catering to varied learning styles and preferences in order to maximize educational efficacy and student happiness.

"enjoyed working in groups," and "learned a lot working in groups, in class,"
"I enjoyed this class very much. I learned more than I ever thought I would in a new, creative, and inspiring way. I encourage this class to be continued in the same way. The instructor might have made my decision easier to major in Econ! Thanks! The experiments were effective in helping me understand the material. I felt I learned a lot from this class. The video lectures were really good in helping me with the chapters too. I really liked the demonstrations and the group work-they helped me to really see the concepts, much better than a lecture would, and I could better visualize something I'd seen rather than heard-that was a big plus for tests"

The words presented embody the essence of modern education, stressing the transformative benefits of online learning and alternative classroom formats on student engagement and pleasure.
Online classes are known for their flexibility, allowing students to access course materials when it is most convenient for them, regardless of time constraints. This flexibility is regarded as a hallmark of modern education, allowing students to tailor their learning experience to their unique needs and schedules. The convenience and flexibility of online classes are frequently emphasized, reflecting a growing recognition of the importance of accommodating diverse learning styles and lifestyles in educational settings.
Furthermore, students prefer online classes because they enable them to work at their own pace. This liberty is praised as a crucial factor in supporting good learning.Besides the benefits of online learning, there is a major

emphasis on the importance of alternative classroom formats in enhancing student engagement and learning outcomes. Some students prefer nontraditional classroom formats over standard lectures, citing improved learning outcomes and more participation. This viewpoint reflects a growing awareness of the limitations of traditional lecture-based methods, as well as a desire for more participatory and engaging learning experiences. The comparison between learning styles and being left- or right-handed underscores the significance of educational practices that cater to a wide range of learning styles and preferences. Students' learning styles differ, just as people's dominant hands, and this determines their preferences and learning efficacy. The expression challenges the idea of teaching introductory economics in a way that only appeals to certain learning types, instead advocating for inclusive pedagogical strategies that accommodate them. In addition to the benefits of online learning, there is a major emphasis on the importance of alternative classroom formats in enhancing student engagement and learning outcomes.

"As for the class itself, I loved the way it was run! The groups were very effective it helped to have your peers explain things to you in a different way that sometimes made more sense. Also, it was easier to get to know your classmates and made for a very comfortable environment. I liked the "hands on" approach. I really enjoyed the class setup and structure. I was a little nervous after the first day of class when we talked about how much responsibility is required for this class"

This input offers valuable insights into the class's overall experience, identifying both its strengths and areas for improvement. First, the good aspects of the class are stressed, particularly the efficacy of group projects. The student valued the opportunity to connect with peers, pointing out that group discussions gave a diverse range of perspectives that increased their understanding of the course material. This collaborative approach not only facilitated learning but also fostered a sense of community among students, resulting in a friendly and encouraging learning environment. In addition, the practical approach to learning is lauded, meaning that the class structure prioritized active engagement and experiential education. The favorable evaluation extends to the class's general layout and structure, showing that the instructional design and course material organization were effective in facilitating learning. The student expressed happiness and satisfaction with the class format, indicating that it suited their learning style and preferences. However, it is important to note that the student expressed concerns about the level of responsibility required for the class. This comment underlines the necessity of clear communication regarding course objectives and requirements, as well as appropriate support tools to assist students in overcoming any barriers that may occur.

4.1.2 THEME 2: ENHANCING COMMUNICATION AND COURSE CLARITY

"Sometimes it takes two to three days to get a response from instructors."

"Students would reach out to a lecturer and the response time would be slow or lecturers do not respond at all."

"Classes are not always easy to follow based on how the facilitator structures the platform, and some classes have grammatical mistakes."

The provided remarks provide insight into a variety of challenges that students may encounter during their educational experiences, particularly in terms of communication with instructors and course material clarity. Let's delve further into each quote to thoroughly explore these themes. The first remark addresses a common student complaint: a delay in receiving responses from teachers. Waiting two to three days for a response can jeopardize a student's progress, particularly if they require immediate clarification or assistance with assignments. This delay might hinder learning development, cause further stress, and elicit sentiments of discontent or desertion. It also raises concerns about teachers' accessibility and responsiveness, which are key components of effective teaching and assistance in both online and traditional educational environments. The second statement raises a more severe issue: some students may not receive any responses from teachers, despite approaching them for support. A lack of response can have a significant influence on student learning and engagement. Students who do not receive guidance or clarification from their professors may fail to understand course material, complete activities correctly, or navigate complex subjects on their own. Furthermore, a lack of instructor aid might make students feel alone and alienated, lowering their enthusiasm and commitment to their studies. In extreme cases, students may become unsatisfied with their educational experience and stop their studies completely. Thus, addressing concerns about sluggish or nonexistent instructor responses is crucial for building a helpful and conducive learning environment in which students feel appreciated. The next phrase goes over another aspect of the learning process: the clarity of course materials and instructional delivery. Classes that are difficult to follow due to the platform's structure or the presence of grammatical faults in course materials may reduce student understanding and learning outcomes. Confusing or disorganized course materials might lead to students missing essential concepts, struggling to link ideas, or becoming frustrated with the learning process. Similarly, grammatical errors can undermine the trustworthiness of course ma trials and lower the overall quality of training. Grammatical errors can distract or frustrate students, resulting in a decreased interest and willingness to learn.

4.1.3 THEME 3: OPTIMIZING LEARNING ENVIRONMENT

"Tutors are easy to reach. When students have a problem, the student can set up a one-on-one with the instructor."

"Student is able to learn material because of the ability to listen and visualize."

The first point underlines how quickly students can seek assistance from tutors. Students benefit from one-on-one encounters with teachers, which allow them to discuss specific concerns or queries. This availability of tutors reflects a commitment to personalized support and learning, allowing students to seek tailored guidance and assistance as needed. By fostering direct communication and interaction between students and instructors, educational institutions foster a supportive learning environment in which students feel empowered to seek help and overcome academic challenges. The second sentence underlines the importance of instructional video strategies in increasing the retention and comprehension of course material. Visual learning refers to the use of visual tools such as diagrams, charts, and videos to convey information and concepts. Research has shown that visual learning can boost comprehension since the brain integrates visual information more rapidly and effectively than text alone. By incorporating visual elements into education, teachers may cater to students' diverse learning styles and preferences, helping them to engage with course material in a meaningful and memorable way. Visual learning not only improves comprehension, but it also encourages active participation and greater learning opportunities.

SECTION 2

Research question was answered in this section. Total 3 question were explained through content analysis of 04 research articles. Three themes were generated from data gathered from research articles published in different time period. Through answering of questions we explained to how student's, explain online learning experience. In this section 1st question was answered by using multiples phrases given by students which truly fulfill the criteria of this question. second question was answered by more than 3 statements. The third question was answered by other 3 statements taken from research articles out of 4. (**See Figure 2)**

Question 1: How does academic achievement correlate with readiness for self-directed learning in an online environment among educational level?

The presented extracts capture the core of modern education, emphasizing the transformative influence of online learning and alternative classroom formats on student engagement, satisfaction, and academic accomplishment,

particularly in self-directed online learning environments.
Online classes are praised for its flexibility, which allows students to access course materials at their leisure, regardless of time constraints. This flexibility is recognized as a key component of modern education, allowing students to adjust their learning experiences to their unique requirements and schedules. The simplicity and flexibility of online classes reflect a growing recognition of the importance of supporting many learning styles and lifestyles in educational environments, resulting in increased accessibility and inclusivity.
In addition, students' ability to work at their own pace in online classes is viewed as an important aspect of self-directed learning. This autonomy enables students to take control of their education and progress through course materials at their own pace, based on their individual learning preferences and abilities. Recognizing online classrooms as appropriate for self-paced learning shows a shift in educational paradigms toward student-centered approaches that emphasize personalized learning possibilities, enabling greater academic autonomy and efficacy.

Question 2: What challenges and barriers are faced in self-directed learning in an online environment?

Waiting two to three days for a response may hinder a student's progress, particularly if they require immediate clarification or assistance with an assignment. This delay can interrupt the learning process, increase tension, and generate sentiments of discontent or desertion. It also raises concerns about teachers' accessibility and responsiveness, which are essential components of effective teaching and assistance in online learning environments. Despite contacting teachers for help, some kids may not receive any responses. The absence of a response has a significant impact on student learning and engagement. Students who do not receive guidance or clarification from their lecturers may struggle to understand course material, complete activities effectively, and navigate complex subjects alone. Furthermore, a lack of instructor aid might make students feel alone and alienated, lowering their enthusiasm and commitment to their studies.
the clarity with which course materials and instruction are presented. Classes that are difficult to navigate due to the platform's layout or the presence of grammatical errors in course materials may impair student comprehension and learning outcomes. Confusing or unorganized course materials may cause students to overlook crucial concepts and struggle. Complicated or unorganized course materials may cause students to miss important concepts, struggle to connect ideas, or become dissatisfied with their learning experience. Similarly, grammatical errors can undermine the credibility of course materials and detract from the overall quality of instruction, leading to decreased student motivation and engagement.

Question 3: What needs of self-directed learning in an online environment among educational level?

The arguments indicate the need to meet the needs of self-directed online learners by providing accessible support and implementing visual learning strategies. By emphasizing individualized assistance and including visual components in education, universities may help students survive in online learning situations, resulting in a more accessible and effective learning experience.

4.2 SUMMARY OF FINDINGS

This chapter summarized the findings from the qualitative content analysis. This study examined data from four research publications that focused on the academic accomplishments, problems, and needs of self-directed online learning in an online environment among students of various subjects. The first section of this chapter described the content analysis findings and provided illustrations of the individuals used in the research investigations, as well as an illustration of the overall outcomes. The second half of this chapter addressed the three research questions that guided the study. The research question was answered using three primary themes that resulted from a study of the content literature. The researcher used the authors' perceptions to generate themes. The main themes were: (1) modify learning experiences, (2) improve interaction and course clarity, and (3) enhance learning environments.

CHAPTER V: DISCUSSION, CONCLUSIONS, LIMITATIONS, IMPLICATIONS, AND FUTURE RESEARCH RECOMMENDATIONS

The overall goal of this study was to examine selected 4 research articles from google scholar that focused on the Perception and experience of students of different subjects in self-directed online learning. In addition, the researcher sought to answer 3 specific research questions that guided the study through the critical lens. Below is a discussion of the research findings as they relate to the research questions.

Research Question 1, 2 and 3

Academic accomplishment and preparation for self-directed learning in an online setting are inextricably linked, and the relationship varies between educational levels. Academic achievement in higher education frequently corresponds positively with preparation for self-directed learning. Students who have exhibited academic achievement are more likely to have the abilities and traits required for self-directed learning in an online setting, such as self-discipline, time management, and critical thinking. These students are more prepared to handle the complexities of online courses, interact with course materials autonomously, and take control of their learning process. Nevertheless, at younger ages, such as primary and secondary school, the relationship between academic accomplishment and preparedness for self-directed learning may be less strong. Without a physical classroom and face-to-face interaction with teachers, students may struggle to maintain a regular study regimen and navigate course materials. Technical concerns, such as inadequate internet connectivity or incompatible software, can disrupt the learning experience and prohibit students from accessing course materials. Balancing online education with other commitments, such as work or family responsibilities, requires exceptional time management skills. Students may struggle to find enough time for self-directed study due to competing priorities. Self-directed instruction focuses on personal drive and autonomy. Students who lack natural drive or struggle to stay interested may have problems maintaining progress and completing online school. Giving students clear instructions, learning objectives, and assessment criteria helps them understand what is expected of them and how they might succeed in an online course. Offering substantial resources, such as online tutorials, academic libraries, and technical support services, ensures that students have the tools and assistance they need to succeed in the online learning environment. Collaborative activities, discussion boards, and virtual group projects foster a sense of community and peer participation, so improving the online learning environment. Course design that accommodates diverse learning preferences and allows students to personalize their learning path promotes autonomy and participation in

5.1 ANALYSIS OF FINDING

Academic achievement and readiness for self-directed learning in a virtual environment are inseparable, although the relationship varies by educational level. Academic success in higher education is typically associated with preparation for self-directed learning. Students who have excelled academically typically possess the skills and attributes essential for effective self-directed learning in an online environment, such as self-discipline, time management, and critical thinking. These students are better equipped to deal with the intricacies of online courses, interact with course materials independently, and take control of their learning process. At lower educational levels, such as primary and secondary school, the link between academic accomplishment and self-directed learning may be less clear. Learning on your own in online environments poses several obstacles and limits. Without the structure of a physical classroom and face-to-face interaction with teachers, students may struggle to build an organized study schedule and navigate course materials. Technical issues, such as poor internet connectivity or incompatible software, can disrupt the learning process and restrict access to course materials. Furthermore, balancing online education with other commitments such as employment or family responsibilities requires strong time management skills, which many students lack. Furthermore, self-directed learning focuses on intrinsic motivation and self-regulation, which some students may struggle to maintain. Considering the importance of self-directed learning in a virtual setting is crucial to fostering student success. Clear instructions, learning objectives, and assessment criteria help students understand and handle online courses more effectively. Providing complete resources such as online lectures, academic libraries, and technology support services ensures that students have the necessary tools and support to succeed. Collaborative activities, discussion boards, and virtual group projects all promote peer interaction and enhance the overall online learning experience. Additionally, course design that accommodates a wide range of learning styles and allows for personalized learning paths fosters autonomy and participation. Finally, offering timely feedback on student progress and performance allows students to track their learning objectives and identify areas for development, promoting a culture of continuous growth.

5.2 CONCLUSION

Using the theory of cognitive learning reveals a better understanding. Academic accomplishment is commonly connected with readiness for self-directed online learning in online environments, but this association may be less clear in lower education. The challenges include a lack of physical classrooms, technical difficulties, time management issues, and intrinsic motivation. Addressing these issues is crucial for increasing student performance in virtual environments. Clear instructions, resources, collaboration opportunities, and courses adapted to various learning styles are essential for encouraging continuous growth and improvement.

5.2 LIMITATION OF STUDY

One of the study's weaknesses is the generalizability of findings across educational levels. While the study looks into the link between academic achievement and readiness for self-directed learning in online settings, its primary focus is on higher education. As a result, the findings may underestimate the intricacies of this relationship in lower educational levels, such as primary and secondary school settings. Furthermore, the study may not address all of the challenges and obstacles that students face in self-directed online learning environments. While the established barriers, such as a lack of physical classrooms, technical impediments, time management difficulties, and intrinsic motivation issues, are discussed, there may be more factors influencing student achievement that have not been adequately examined. Moreover, the study emphasizes the need to resolve issues and assist in increasing student success in virtual environments. However, it may not provide sufficient clarity on the specific techniques or interventions required to effectively address these difficulties. Additional research is needed to investigate and evaluate the efficacy of specific solutions for overcoming the identified hurdles and boosting student success in self-directed online learning. Furthermore, while the study emphasizes the importance of clear instructions, resources, collaboration opportunities, and courses designed for different learning styles in promoting continuous growth and improvement, it does not fully investigate the feasibility and implementation of these strategies in a variety of educational settings. Future research should look into the practical implications and potential barriers to using these.

5.3 IMPLICATION OF STUDY

1. Understand the importance of developing self-directed online learning skills alongside typical academic achievement measures.
2. Encourage students to develop self-directed learning abilities by providing resources, advice, and mentoring.
3. Invest in technological infrastructure and support services to address technical difficulties and provide consistent online learning experiences.
4. Include self-directed learning options in courses to empower students to take charge of their education.
5. Provide clear instructions, learning objectives, and assessment criteria for self-directed online learning activities.
6. Offer feedback and support to help students overcome obstacles and remain motivated during self-directed learning activities.
7. Manage online learning by creating objectives, planning study habits, and acquiring necessary resources and support.
8. Improve self-discipline, time management, and motivation for self-directed learning.
9. Utilize digital tools and resources to enhance online learning and academic success.
10. Provide resources and finances to enhance digital literacy and technology infrastructure in educational institutions.
11. Promote research and innovation in online learning approaches to enhance academic achievement and self-directed learning outcomes.
12. Conduct research on the correlation between academic achievement and self-directed learning in various educational contexts and demographics.
13. Identify effective strategies and treatments for promoting self-directed learning and enhancing academic performance.

5.4 FUTURE RECOMMENDATION

1 Educational organizations ought to incorporate self-directed learning skills into the curriculum at all levels. This includes offering classes or modules that teach skills such as time management, goal setting, self-assessment, and information literacy.

2 Offer professional development opportunities for educators to enhance their design and skills for self-directed online learning. This could include providing training in effective online pedagogies, employing technology for personalized learning, and encouraging student autonomy.

3 Utilize adaptive learning technology and personalized learning platforms to tailor information and activities to individual student needs, preferences, and learning styles. This strategy can boost student engagement and accomplishment by adapting to their individual learning demands.

4 Enhance online student support services, including academic advising, counseling, tutoring, and technical assistance. Make sure students have access to a wide range of support resources for academic, personal, and technological concerns.

5 Develop and execute strategies to improve digital literacy among children, teachers, and parents. This includes learning about digital tools and platforms, honing critical thinking skills for analyzing online content, and demonstrating responsible digital citizenship.

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