



**A Comparative Study: The Effectiveness Between Online Class and Face to
Face Class**

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Chapter I

The Problem and Its Background

This chapter presents the background of the study, statement of the problem about the research entitled, “A Comparative Study: The Effectiveness Between Online Class and Face to Face Class.” This also contains the objectives of this study.

Background of the Study

Switching from face-to-face classes to online classes must be new to many people. The Philippines, among other countries, was forced to conduct online classes due to the pandemic. A lot of the people needn't worry about adjusting to online classes since we are in the technology age, meaning, the majority of the people are now tech-savvy. However, not all adjusted very well, so they ended up falling behind. In this research, we will find out the difference in learning effectiveness between the face-to-face and online classes.

Classes are scheduled and organized according to a set timetable in a classic face-to-face learning situation. As a result, this educational system is more structured. In a group context, classroom learning also takes place and might encourage more interaction, participation, and discussion. When opposed to a scheduled, in-person session, online learning is more spontaneous. When inspiration or curiosity strike, students may decide to enroll in an online course or learning module. Best of all, students can complete it whenever they want and at their own pace. The student is alone in this situation because this type of learning doesn't use a live instructor.

Learner-instructor interaction in an online learning environment is frequently asynchronous. Asynchronous learning allows the learner to study at their own pace, however,

questions are typically placed on an online forum where an instructor will respond. Due to this, there is some interaction delay. Nevertheless, this delay can be reduced by prompt virtual assistance. Live interaction between a teacher and a student is a key component of traditional classroom-based instruction, which enables quick dialogues and question clarification.

Statement of the Problem

Online and face-to-face classes have their own advantages and disadvantages, but one might be a more effective method than the other. Due to the switch from face-to-face classes to an online learning setup, the blended learning with new technological methods has been known to greatly impact the lives of students as well as teachers. The sudden shift of learning setup has created a variety of concerns, especially regarding the effectiveness of learning of the students.

The researchers will focus on the effectiveness of both online and face-to-face learning to better identify the comparison between the two.

1. What are the differences in the effectiveness in learning between face-to-face and online classes?
2. What factors contribute to a student's academic performance during an online learning setup?
3. What factors contribute to a student's academic performance during a face-to-face learning setup?
4. What factors affect the students' learning process in an online learning setup?
5. What factors affect the students' learning process in a face-to-face learning setup?

Objectives of this Study

- To explore the difference in learning effectiveness between face-to-face classes and online classes.
- To identify the impact of online learning on students in terms of academic performance.
- To identify the factors that contribute to the effectiveness of online-learning setup.

Chapter II

This chapter presents the review of related literature and studies related to the research entitled, “A Comparative Study: The Effectiveness Between Online Class and Face to Face Class.”

What Are the Key Differences Between eLearning and Face-to-Face Learning?

Distance learning has grown in popularity in recent centuries. A plethora of literature asserting the aim of finding behavior of online learning has emerged in recent years. According to Friedman and Moody (2018), “Online Class” are typically a mix of video recordings or live lectures supplemented with readings and assessments that students can complete on their own time. On the other hand, “Face-to-face learning” is an instructional method where course content and learning material are taught in person to a group of students (Shah, 2022).

Allen and Seaman (2013) discovered that academic outcomes through online education are comparable or preferable to those in traditional F2F classrooms. Nevertheless, researchers argued that, due to fundamental distinctions, online education does not replicate traditional classroom knowledge acquisition. Tratnik et al, (2019) substantial variations in student overall satisfaction were discovered between online and face-to-face courses. Students were more satisfied with the course in a F2F setting. In addition, Kuzma et al. (2015) 37% of students concurred that traditional classes provided more opportunities to learn, 31.1% agreed, 21.3% had no personal view, 19% simply disagreed, and 1.2% vehemently disagreed.

The two have differences when it comes to the learning of an individual. According to the study of Nguyen (2021) there are five key differences between online learning and face-to-face learning. Here are as follows:

First, Learning environment, “In a traditional ‘face-to-face learning’ scenario, classes are planned and structured according to a fixed schedule. While, “Online learning is more spontaneous when compared to a planned, in-person session.” (Elangovan, Mahrous & Marchini, 2020) states that in addition to these mixed results, little attention has been given to factors affecting students’ acceptance of online learning during the pandemic. With the likelihood that online learning will persist post pandemic; research in this area is warranted to inform online course design moving forward. (St-Amand, Girard, 2017) In particular, prior research has demonstrated that one of the most important factors influencing students’ performance in any learning environment is a sense of belonging, the feeling of being connected with and supported by the instructor and classmates. (Peacock & Cowan, 2019)

Second, Type of Learning Content; “Face-to-face learning methods usually only involve traditional learning materials such as textbooks and lecture notes. An online learning session is more interactive in comparison, with many different types of training.” According to (Brown, 2019) In elearning, many approaches of teaching and course content encompass various communication expertise such as reviewing written material, consuming video and audio content substance, and having conversations with others in a variety of interpersonal genres. To start understanding content, to observe how creative ideas are implemented, to comprehend assignment characterizations and to get feedback regarding your performance. Diverse communication skills are paramount in online learning. While different from its face-to-face counterpart, which involves more lecture and dialogue-based learning exercises, the advantage of having diversely communicated course content is that students may read or view and review the course materials over and over again (as many times as needed), thereby better supporting student achievement.

Third, Pace of learning; “The instructor leads the learning pace in a traditional classroom setting, and students are likely to learn passively.” According to the research of Businessmirror (2022) Face-to-face learning is much better compared to online learning because, as the Stanford researchers found out, “in-person communications make our brains happier.” In a classroom setting, teachers can manage their topics very well because there is no longer a need to compress their topics to fit the modules. “On the other hand, the learner is free to move at their own pace in an eLearning setting.” Flexible schedule and environment can transpire, whilst also taking an online course, you can select the optimal learning environment for you, whether it's your private room, your systematic review, the café throughout the roadside, or your community fitness center, where you can pay any attention to your instructor's lecture presentation while running on the elliptical (Heap, 2017). Ariana et al.,(2016) discussed, a major advantage of e-learning is the possibility of self-directed learning. Self-directed learning is defined as an individual process whereby students take the initiative in determining their learning needs and goals. An important component of learning in the classroom is the social and communicative interaction between the student and the teacher, and between students themselves. The students’ ability to ask a question, share an opinion, or disagree with a point of view is a fundamental learning activity (Medina, 2015).

Fourth, Types of Assessments; “In a traditional learning scenario, the instructor often tests students after delivering a fixed set of learning modules.” Moreover, “eLearning modules have frequent knowledge checks and short assessments in place to ensure that the content has been well received.” (Kubekova, 2019) Examination in the form of a paper-based test is customarily accepted as the primary assessment approach of academic achievement and intellectual performance of the individual. The advantages of using this approach also include

progression of a thinking cultural context and linguistic self-expression. Students' published language clearly illustrates the ability to articulate a strategic approach sufficiently. Notwithstanding, the authored appraisal paradigm in all of its variations is currently losing ground to oral assessment methods (Arefyev, et al., 2020). As a result of a number of preconditions, we can see a shift in control manifestations. During the correspondence course the inescapable use of digital technology and electronic resources apparently made possible the teaching experience, but often prompted outright misconduct between many university students. The entrenched template of any assessment instrument and students' assessment procedures, with a substantial written constituent and a minor oral or imaginative constituent, does not meet existing circumstances. In this case, we perceive a short-term false interaction (false interaction) which is a form of social interaction in which respondents imitate appropriate behavior. The distinguishing feature associated with this type of behavior is that both students comprehend the deceptiveness of the intervention or result, but for mutual advantage or tranquility, they take the alteration for actuality (Kashirina, 2013). During the distance investigation, students frequently used digital sites, messaging app platforms, and auxiliary software products. In this particular instance, students' technical knowledge was deleterious and had far-reaching bad repercussions (Glushkova, 2018).

Last is, Asynchronous vs. Synchronous Interaction. "In online learning scenarios, learner-instructor interaction is often asynchronous. With asynchronous learning, the learner is able to study at their own pace, but queries are usually posted on an online forum to be answered by an instructor. This leads to some delay in interaction, which can be minimized via timely virtual support." Furthermore, "Traditional classroom-led teaching involves live interaction between an instructor and a student, thus facilitating instant discussions and query clarification."

Student perspectives and attitudes are critical components of a student's interest in e-learning (Chawla & Joshi, 2012). Student (demographic) attributes such as major/level, sexual preference, and prior experiences with online education may influence a student's attitudes and experiences of online education, which include motivation, diligence, self-directed essence, personal autonomy, feelings about time and financial investment, predisposition, contentment, and propriety. In a traditional F2F classroom, teachers acknowledge and react to emotional experiences (facial gestures, body language, eye contact, and monologue), as well as students' individual distinctions (maturity and insight), and reconfigure lessons to ensure that students have a positive educational experience. (Reilly, Gallagher-Lepak & Killion, 2012). Notwithstanding, an online course does not teach methods to make real-time changes to the course, and these considerations may have an influence on students' notions in the online versus F2F environment.

The Benefits of Online Courses vs Face-to-Face Education

Traditionally, classroom instruction is known to be teacher-centered and requires passive learning by the student, while online instruction is often student-centered and requires active learning. In teacher-centered, or passive learning, the instructor usually controls classroom dynamics. The teacher lectures and comments, while students listen, take notes, and ask questions (Paul & Jefferson, 2019). According to the studies of Driscoll et al., (2012) “literature on the efficacy of online courses is expansive and divided”. Some studies favor traditional classroom instruction, stating “online learners will quit more easily” and “online learning can lack feedback for both students and instructors” (Atchley et al., 2013).

Classroom teaching, on the other hand, is a long-established simulation in which teaching structure and approach have been distinguished over generations. Face-to-face admonition has massive benefits that teaching approach does not provide (Xu and Jaggars, 2016). The advantages and disadvantages of both instructional modalities need to be fully fleshed out and examined to truly determine which medium generates better student performance. Both modalities have been proven to be relatively effective, but, as mentioned earlier, the question to be asked is if one is truly better than the other (Paul & Jefferson, 2019).

First and perhaps most pertinently, the teaching method is extremely volatile. Traditional classroom instruction provides significant face-to-face admonition and sparks groundbreaking questionnaires. It also enables immediate knowledge sharing and knowledge and more adaptable digital distribution. Online instruction diminishes the learning process seeing as students must limit their concerns to blurbs, then authorizes the teacher and fellow classmates the opportunity to respond. However, online teaching will most likely progress over time, strengthening student engagement and introducing students face-to-face with their peers/instructors. Nevertheless, for now, face-to-face education includes continuous learning aspects not discovered in software lessons (Kemp and Grieve, 2014).

Second, face-to-face education did not necessarily rely on network infrastructures. The student must have unrestricted Internet connectivity to participate in distance learning. Online students may be unable to share information, submit assigned tasks, or access learning resources if technical issues arise. As a result, the student may become frustrated, underachieve, and lose enthusiasm for learning (Paul and Jefferson, 2019).

Finally, studies show that online learners are more likely to withdraw out whenever they detest the professor, the format, or the constructive criticism. Seeing as they act remotely and

depend solely almost entirely on consciousness and self-direction, online students may be more inclined to leave out if they do not see positive outcomes (Paul and Jefferson, 2019).

The classroom atmosphere generates enough encouragement, reassurance, and direction. Regardless of whether a student considered quitting within the initial weeks of the course, he/she may be impeded by the professor and fellow students. Face-to-face lecturers may be capable of changing the class structure and teaching style to promote academic preservation. (Kemp and Grieve, 2014). With instructional methods, instructors are severely restricted to electronic correspondence and may not discover interpersonal and non-verbal prompts.

Both face-to-face and online instruction have advantages and disadvantages. More research evaluating different methodologies to acquire particular learning outcomes in participating learner populations is needed before making well-informed decisions. Over the course of eight (8) years, this study looked at the two modalities on three separate levels. Based on the preceding information, the subsequent research questions contributed (Paul and Jefferson, 2019).

Academic Integrity: Online Classes and Face-to-Face Classes

According to Miller & Young-Jones (2013), students felt it was easier to cheat in online classes than face-to-face classes. For students taking both online and face-to-face classes, we found that cheating occurred more frequently in online classes. However, students who took only online classes were less likely to cheat than students who took only face-to face classes. Young-berg's (2012) commentary in the Chronicle of Higher Education argues that the number one reason why online education will not replace college is "It's too easy to cheat." But

comparing findings to other studies that estimate cheating in traditional classes (Miller & Young-Jones, 2013). Corresponding to the study of Middleearthnj (2015) cheating hampers progress. Learning tends to build on itself. You learn basics first so that you can use those basics in more complicated problems later. If you don't know the basics, then you will have to continue to cheat, or start over learning the material from scratch. Every time you cheat, you're not learning skills and lessons that could be important later on.

However, specific cheating behaviors differ for students taking both types of classes and only face-to-face courses. Students in both types of classes were significantly more likely to report the usage of cheat sheets during tests, paraphrasing without proper citation, assisting others cheat, and unauthorized use of text or web in answering items. An overlap occurs for only face-to-face students in helping someone else cheat and paraphrasing without appropriate citations (Miller & Young-Jones, 2013). Fonseca (2014) stated the problematic consequences of student cheating in terms of two main aspects. The first concerns how ethics, morals and social trust in school become damaged through cheating, and the second concerns how the learning of an individual student is affected.

Research has shown that student cheating can be activated by perceiving that many of one's peers tend to cheat and get away with it (McCabe et al. 2012). According to Anderman and Koekan (2017), school environments with a strong emphasis on competition and achievement have also been found to evoke cheating behavior in the student population. Moreover, Diego (2017) discusses that the literature indicates some reasons that cause learners' online cheating. For instance, lack of responsibility, laziness, lack of respect for academic rules, and showing no interest or being unwilling to study as well as low self-esteem are the most important internal

reasons. Furthermore, academic dishonesty is not a new concept, yet online examinations require different strategies in comparison to the traditional tactics (Michael & Williams, 2013).

Chapter III

Research Methodology

This chapter presents the data collecting and instruments, sample, data analysis method, and action proposal

Data collection and instrument

The method the researchers will use to gather the necessary information for this type of study is through a survey. The survey intends to measure the difference between online learning and traditional learning in terms of effectiveness by asking the students themselves about their perspective on the difference between online learning and face-to-face learning.

After test results, the students were given a self-administered questionnaire to compare face-to-face learning versus online learning. The questionnaire was divided into three sections; the first looked at the frequency with which students attended lectures, whether or not the teacher had clearly stated the learning objectives, whether or not these objectives had been met, whether or not the various chapters of the course ran without a hitch, whether the number of hours allotted to this course was appropriate, and whether or not the lecturer's delivery had made it easier for students to understand and assimilate the material.

The second section of the survey examined how online learning affected the entire course and covered using a platform to distribute e-learning resources. Given that the formative assessments on the e-platform were multiple choice, the questionnaire's open-ended questions focused on the factors that made the course difficult, potential improvements to the course's instruction, and the best ways to evaluate it. At the conclusion of their practical assignment, students were given the questionnaire. No time restriction was established. To prevent data loss and assess non-response bias, survey forms were swiftly gathered.

Sample

The study was carried out at the College of Science, Adamson University, Philippines. 150 college students in any year will be participating in the study as part of the study “A Comparative Study Between the Effectiveness of Online Class and Face to Face Class”.

Data Analysis methods

To analyze the data gathered by the researchers, they will take a quantitative approach in analysis due to the data collected being a measurement on the difference between face-to-face learning and online learning in terms of how effective the teaching method is on the students that were surveyed. The way the researchers will analyze the data quantitatively is first by separating the data into two sets, the first set is data that measures the effectiveness of online learning and the second set is data that measures the effectiveness of face-to-face learning. The Second step in the analysis is putting the data from the data sets into categories that can be compared to the same category from the other data set .After that The researchers will conduct the analysis by comparing the two categorized data sets with each other to see which one is more effective in

each categories, The researchers will deem a learning method more effective by checking which of the two data sets have more categories that are higher than their counterpart from the other data set.

Action Proposal

After looking at previous research the researchers have concluded that there are many advantages and disadvantages these two learning methods have and that they don't need to be exclusive to each other for it to work. With this conclusion, the researchers determined methods that can help improve online learning and face-to-face learning and help integrate both learning methods with each other. The researchers suggest the first thing in teaching in an online setting is understanding the key features of the online platforms for the students who are using a variety of features, including break-out rooms, screen sharing, managing learning materials, and communication support, offered by learning platforms.

To properly design your classes, it is crucial to comprehend the platform's benefits and drawbacks. You should test the features prior to teaching the session to ensure that everything goes according to plan. Second is using technology and teaching techniques that are appropriate for online lessons that appear to limit teachers to the small screen, which causes students to become disengaged from the subject matter, in contrast to classroom instruction where students can physically interact in an immersive environment. Long, one-way live streaming sessions tend to disengage students within 10-15 minutes. As a result, you might think about breaking up the session into manageable chunks of time and including a variety of engaging activities.

As for the face-to-face setting, the researchers suggest that teachers use more visual aids like presentations and videos this is because students are more likely to be interested in the subject when they can see the topic visually and not just creating a mental image from reading a book, another way to improve face-to-face learning is for the teacher to adapt their teaching style to the needs of their students so that every student can learn at their own pace.

As for integrating the two learning methods, the researchers think that face-to-face learning should be used only when the subject requires the student to be there physically like physical education and lab subjects. While subjects that don't necessarily require the students to be there physically can be done online, however, when it comes to exams the researchers all agreed that it is wiser to conduct them face-to-face to decrease the chances of cheating. Overall, the researchers think that integrating both online learning and face-to-face learning with each other is the best learning method right now.

References

- Anderman, E. M., & Koekan, A. C. (2017, April 20). *The Relation Between Academic Motivation and Cheating: Theory Into Practice: Vol 56, No 2*. Taylor & Francis Online. Retrieved December 11, 2022, from <https://www.tandfonline.com/doi/abs/10.1080/00405841.2017.1308172?journalCode=htip20>
- Ariana, A., Amin, M., Pakneshan, S., Dolan-Evans, E., & Lam, A. K. (2016, September 1). *integration of Traditional and E-Learning Methods to Improve Learning Outcomes for Dental Students in Histopathology*. Wiley Online Library. Retrieved December 11, 2022, from <https://onlinelibrary.wiley.com/doi/10.1002/j.0022-0337.2016.80.9.tb06196.x>
- Atchley, T., Wingenbach, G., & Akers, C. (2013, September 30). *Comparison of course completion and student performance through online and traditional courses*. The International Review of Research in Open and Distributed Learning. Retrieved December 11, 2022, from <https://www.irrodl.org/index.php/irrodl/article/view/1461>
- Brown, R. (2019, January 16). *13 Differences Between Online and Face to Face Courses*. Miami Regionals. Retrieved December 11, 2022, from https://miamioh.edu/regionals/eccoe/news/2019/01/differences-between-f2f-and-online.html?fbclid=IwAR0hJbsM9QoEG_WPAU37WcMlpsZzZI3SEOcIRt9wi-oggcbs2__z2OAVF4M
- Businessmirror. (2022, March 4). *Face-to-face classes are better for learners*. BusinessMirror. Retrieved December 11, 2022, from <https://businessmirror.com.ph/2022/03/04/face-to-face-classes-are-better-for-learners/>

- Chawla, D., & Joshi, H. (2012, October 1). *E-Learning Perception and its Relationship with Demographic Variables: A Factor Analysis Approach*. ACM. Retrieved December 11, 2022, from <https://dl.acm.org/doi/abs/10.4018/jicte.2012100109>
- Diego, L. A. B. (2017, September 1). *Friends with Benefits: Causes and Effects of Learners' Cheating Practices During Examination*. IAFOR. Retrieved December 11, 2022, from <https://iafor.org/journal/iafor-journal-of-education/volume-5-issue-2/article-6/>
- Driscoll, A., Jicha, K., Hunt, A., Tichavsky, L., & Thompson, G. (2012, May 16). *Can Online Courses Deliver In-class Results?: A Comparison of Student Performance and Satisfaction in an Online versus a Face-to-face Introductory Sociology Course*. Sage Journals. <https://journals.sagepub.com/doi/10.1177/0092055X12446624>
- Elangovan, S., Mahrous, A., & Marchini, L. (2020, June 4). *Disruptions during a pandemic: Gaps identified and lessons learned*. NCBI. Retrieved December 11, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7301023/>
- Ellaine, A. I., & Jeff, S. (2012, October 29). *Losing Paradise*. YouTube. Retrieved December 11, 2022, from https://eric.ed.gov/?id=ED541571&fbclid=IwAR1fEHWOmycFeLzkDsWrxhxoV2PUpgqULA74G-Yv_L5XAcoFX0heo1YqyA8
- Friedman, J., & Moody, J. (2018, January 16). *How Do Online Classes Work: 10 Frequently Asked Questions*. USNews.com. Retrieved December 10, 2022, from <https://www.usnews.com/higher-education/online-education/articles/2018-01-16/how-do-online-classes-work-10-frequently-asked-questions>
- Glushkova, N., Apresyan, K. H., Mironova, D. A., Lyubimova, T. N., & Chernyishkova, N. V. (2021, December 01). *Differences in assessment methods of face-to-face and online*

learning. SHS Web of Conferences. Retrieved December 11, 2022, from

https://www.shs-conferences.org/articles/shsconf/pdf/2021/38/shsconf_mtf12021_01015.pdf?fbclid=IwAR1859KFDmYMP044rE88F3z6xF4QN9Dkh2YYF3r-spdZ-T7M KYTnPmbOk

Heap, T. (2017, June 05). *5 BENEFITS OF STUDYING ONLINE (VS. FACE-TO-FACE*

CLASSROOM). Illinois Online. Retrieved December 11, 2022, from

[https://online.illinois.edu/articles/online-learning/item/2017/06/05/5-benefits-of-studying-online-\(vs.-face-to-face-classroom\)?fbclid=IwAR3IU7GVToewpfYt-dIL-nm0U4SMguogwBr1XCA1LYk4kF6YPXN5zD1sKY](https://online.illinois.edu/articles/online-learning/item/2017/06/05/5-benefits-of-studying-online-(vs.-face-to-face-classroom)?fbclid=IwAR3IU7GVToewpfYt-dIL-nm0U4SMguogwBr1XCA1LYk4kF6YPXN5zD1sKY)

Jaggars, S. S., & Xu, D. (2016, October 31). *Performance Gaps between Online and*

Face-to-Face Courses: Differences across Types of Students and Academic Subject

Areas. Taylor & Francis Online. Retrieved December 11, 2022, from

<https://www.tandfonline.com/doi/abs/10.1080/00221546.2014.11777343>

Kemp, N., & Grieve, R. (2014, November 12). *Face-to-face or face-to-screen? Undergraduates'*

opinions and test performance in classroom vs. online learning. Frontiers. Retrieved

December 11, 2022, from

<https://www.frontiersin.org/articles/10.3389/fpsyg.2014.01278/full>

Killion, C., Reilly, J. R., & Gallagher-Lepak, S. (n.d.). *"Me and my computer": emotional factors*

in online learning. PubMed. Retrieved December 11, 2022, from

<https://pubmed.ncbi.nlm.nih.gov/22616408/>

Kuzma, A., Kuzma, J., & Thiewes, H. (2015, May 12). *Business Student Attitudes, Experience,*

And Satisfaction With Online Courses. American Journal of Business Education.

Retrieved December 11, 2022, from <https://clutejournals.com/index.php/AJBE/article>

- Lars, F. (2012, October 29). *Det godkända Fusket: Normförhandlingar i gymnasieskolans bedömningspraktiker*. Linneuniversitetet. Retrieved December 11, 2022, from http://lnu.diva-portal.org/smash/record.jsf?aq2=%5B%5B%5D%5D&c=1&af=%5B%5D&searchType=SIMPLE&query=lars+fonseca&language=sv&pid=diva2%3A748741&aq=%5B%5B%5D%5D&sf=all&aq=%5B%5D&sortOrder=author_sort_asc&onlyFullText=true&noOfRows=50&dswid=1827
- McCabe, D. L., Butterfield, K. D., & Treviño, L. K. (2012, September 11). *Cheating in College: Why Students Do It and What Educators Can Do about It*. Google Books. Retrieved December 11, 2022, from https://books.google.com.ph/books?hl=en&lr=&id=DfBLxVIq5IAC&oi=fnd&pg=PP2&ots=eACHM9Iaj4&sig=nDMVoRTFRE09XfozIpA-0kav4Qo&redir_esc=y#v=onepage&q&f=false
- Medina, M. B. E. (2015, February 23). *Influence on the teaching-learning process between teacher-students*. UDGVirtual. Retrieved December 11, 2022, from <http://www.udgvirtual.udg.mx/paakat/index.php/paakat/article/view/230/347>
- Michael, T. B., & Williams, M. A. (2013, November 2). *Student Equity: Discouraging Cheating in Online Courses*. ERIC. Retrieved December 11, 2022, from <https://files.eric.ed.gov/fulltext/EJ1057085.pdf>
- Middleearthnj. (2015, September 28). *10 Reasons Why Cheating is Wrong*. Middle Earth. Retrieved December 11, 2022, from <https://middleearthnj.org/2015/09/28/10-reasons-why-cheating-is-wrong/>
- Miller, A., & Young-Jones, A. D. (2013, January). *Academic integrity: Online classes compared to face-to-face classes*. Research Gate.

https://www.researchgate.net/publication/260969851_Academic_integrity_Online_classes_compared_to_face-to-face_classes

Nguyen, S. (2021, September 23). *Online Learning vs. Face-to-Face Learning: Which Is Best?*

Whatfix. Retrieved December 10, 2022, from

<https://whatfix.com/blog/online-learning-vs-face-to-face-learning/>

Paul, J., & Jefferson, F. (2019, November 12). *A Comparative Analysis of Student Performance in an Online vs. Face-to-Face Environmental Science Course From 2009 to 2016.*

frontiers. Retrieved December 11, 2022, from

<https://www.frontiersin.org/articles/10.3389/fcomp.2019.00007/full?fbclid=IwAR1xUXd5ANysXqjU9zUBA7y4dk1BoZIN-qQcZtAPX87vHCvwwMUPnY0brpg#B30>

Peacock, S., & Cowan, J. (2019, June 2). *Promoting Sense of Belonging in Online Learning*

Communities of Inquiry in Accredited Courses. ERIC. Retrieved December 11, 2022,

from <https://files.eric.ed.gov/fulltext/EJ1218391.pdf>

Shah, R. (2022, March 1). *Face-to-face Learning: Benefits, Advantages and Disadvantages.*

Bench Partner. Retrieved December 11, 2022, from

<https://benchpartner.com/blog/face-to-face-learning-benefits-advantages-and-disadvantages>

St-Amad, J., Girard, S., & Smith, J. (2017, September 1). *Sense of Belonging at School: Defining*

Attributes, Determinants, and Sustaining Strategies. IAFOR. Retrieved December 11,

2022, from <https://iafor.org/journal/iafor-journal-of-education/volume-5-issue-2/article-5/>

Teresa, M., & Piñero, J. C. (2021, June 15). *Face-to-Face vs. E-Learning Models in the*

COVID-19 Era: Survey Research in a Spanish University. MDPI. Retrieved December

11, 2022, from <https://www.mdpi.com/2227-7102/11/6/293#B30-education-11-00293>

Tratnik, A., Urh, M., & Jereb, E. (2017, September). *Student satisfaction with an online and a face-to-face Business English course in a higher education context*. Research Gate.

https://www.researchgate.net/publication/319603080_Student_satisfaction_with_an_online_and_a_face-to-face_Business_English_course_in_a_higher_education_context

Valizadeh, M. (2022, January). *CHEATING IN ONLINE LEARNING PROGRAMS: LEARNERS' PERCEPTIONS AND SOLUTIONS*. Research Gate.

https://www.researchgate.net/publication/357477616_CHEATING_IN_ONLINE_LEARNING_PROGRAMS_LEARNERS'_PERCEPTIONS_AND_SOLUTIONS