جامعة المنصورة
كلية التربية

# The Impact of the Academic Integrity Online Training Program to promote Medical Scholars' Self-Regulation Skills

*By*

**Aya Maher Tawfik Mohamed Ali**

**TEFL Training & Development Specialist**

**at The Vice President for Post Graduate Studies, Research and Cultural Affairs office, Mansoura University**

*Supervised by*

**Prof. Aly Abdul-Samea Qoura**

*Professor of Curriculum & Instruction (TEFL)*

*Mansoura University*

*Faculty of Education*

**Prof. Adel Abd Alhaliem Alsheikh**

*Professor of Curriculum & Instruction (TEFL)*

*Mansoura University*

*Faculty of Education*

***Journal of The Faculty of Education- Mansoura University***

***No. 119 – July. 2022***

# The Impact of the Academic Integrity Online Training Program to promote Medical Scholars' Self-Regulation Skills

**Aya Maher Tawfik Mohamed Ali**

## Abstract

Researchers in bio/medical fields are required to have high levels of academic integrity and research ethics. Academic integrity is not embedded in Egyptian educational and learning systems due to a lack of information and collaboration among those in charge of managing educational and learning processes, such as instructors, professors, administrators, stakeholders, and academic institutions. The goal of the current research was to explore the effects of an online training program on the attitudes, knowledge, and performance of bio/medical scholars at Mansoura University regarding academic integrity and self-regulation abilities using a quasi-experimental one-group pretest-posttest design. Additionally, the research examined the connection between self-regulation and academic integrity before and after the program was implemented. A self-questionnaire was distributed to sixty scholars (M = 56.7%; F = 43.3%) from five faculties at Mansoura university, Egypt at the beginning and the end of the program. Lastly, the research sample finished a program satisfaction questionnaire at the end of the implementation. T-test and descriptive statistics revealed significant changes in attitudes, knowledge, and performance of academic integrity, as well as self-regulation. The relationship between self-regulation and academic integrity was further verified using Pearson's correlation rate analysis. Moreover, the participants were satisfied with the program. As a result, this research advocated implementing an academic integrity online curriculum that incorporates self-regulation learning skills to avoid research misconduct and promote responsible research behaviors.

**Keywords**: Self-regulation (SR); Academic Integrity (AI); Academic misconduct; Falsification, Fabrication, Plagiarism (FFP).

## Introduction

The integration between research and teaching in the bio/medical disciplines is considered a challenge for scholars and faculty staff especially when universities, faculties, and institutions aimed at improving their rankings, and prestige among their other academic institutions. A number of intentional to unintentional reasons have been recognized while committing research misconduct.

Research misconduct exists because of the unethical behaviors that occurred while the process of submitting, reviewing, and publishing scientific articles in high-impact journals. The recent studies are full of different concepts, definitions, and descriptions of academic misconduct. Research misconduct is considered to be the main concept that covers most academic integrity violations in both secondary education and higher education. According to the Committee on Publication Ethics (COPE) and British Medical Journal (2021), research misconduct is defined as a "violation of the standard codes of scholarly conduct and ethical behavior in professional scientific research". Moreover, the US Department of Health and Human Services Office of Research Integrity (ORI, 2021) defined research misconduct as "fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results".

Fabrication, falsification, and plagiarism (FFP), are inseparable terms of research misconduct and are considered to be a critical problem in scientific research because such practices corrupt the research data and put human lives at stake. Kuroki (2018) affirmed that fabrication, falsification, plagiarism (FFP), and questionable research practice (QRP) are represented as categorizations of research misconduct practices. Pimple (2002) defined these terms as "Fabrication is making up data or results and recording or reporting them; Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record; Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit" (p. 195).

And it is expected that implementing an online training program will develop academic integrity awareness, and improve self-regulation performance while conducting scientific research papers for MA/PhD degrees. Furthermore, it will encourage the faculty members, stakeholders, and administrators of academic research institutions to involve their students, scholars, and researchers with accepted ethical responsibilities of scientific research and publications, and to be fully aware of the academic integrity values and principles; to acquire the research process, and self-regulation skills for lifespan, and to deal with violations of academic integrity.

## Literature review

### 1- Self-regulation learning

Self-regulation learning (SRL) is an important strategy for the field of secondary and higher education in general and improving scientific writing and research skills learning in particular and is considered a required skill for lifelong learning. Many researchers approved that SRL has a great impact on the academic goals and achievement of learners at different levels of education and over years (Mullen, 2011; Broadbent & Poon, 2015; Dent & Koenka, 2016).

Many studies investigated the significant roles of SRL strategies in enhancing students, graduates, and postgraduates' performance and academic achievement in higher education, as self-learning is a prerequisite for learning in higher education (Sitzmann and Ely 2011). Learners who possess high self-regulated levels are intrinsically motivated, autonomous individuals, proactive in pursuing their own goals for their learning and taking control of the process of their learning (Kizilcec et al., 2017; Cavalcanti et al., 2018; Cicchinelli et al., 2018). Self-regulated learners are expected to succeed academically as well as have a clear vision of their future achievements .

Self-regulated individuals learn faster and succeed academically, as well as being more looking forward to their future, highlighting SRL's importance for lifelong learning (Zimmerman, 2002). As well as learners with higher levels of self-regulatory skills tend to be more motivated academically and show effective learning abilities (Pintrich, 2003; Dignath, 2008). Ning and Downing (2010) concluded that those who started the academic year with stronger self-regulatory skills were able to sustain motivation throughout the academic year.

Sagasser, et.al (2012) mentioned three benefits of using SRL strategies and theories in biomedical field learning. The first one is "positive social impact factors" which appeared in the coach or a supervisor and colleagues' effects on the learner, the second one is "positive contextual factors" as patient care is considered as an external motivation for learning, and the last one is "positive individual influential factors" which influenced by internal motivation and prior specified-goals .

SRL is an active, constructive process and it needs support, scaffolding, and explicit teaching as the individual's self-regulatory practices develop (Pintrich, 2000). Furthermore, self-regulation is seen as an important factor in the improvement of lifelong learning skills for all

learners at all education levels, motivation toward learning, and reflective practices (Luftnegger et al., 2012). And that led us to SRL is a teachable skill that can be taught and, learned through "goal-directed engagement. And when integrated into scientific writing implementations, it helps incompetent writers to become better writers. The interventions of SRL strategies, theories, and models have been developed and implemented in different education levels, different fields, and different online learning environments

Academic achievement is improved as a result of implementing self-regulation strategies and theories. And this is because academic writing is a cognitively demanding skill and learners with strong self-regulatory skills were able to show motivation toward academic writing as an enjoyable task throughout their academic life. Furthermore, Farsani et al. (2014) confirmed that self-regulation learning strategies implementations typically high academic achievement.

Harris et al. (2011) examined the effectiveness of using Self-Regulated Strategy Development (SRSD) in writing programs. The findings showed improvements in the writing quality, as well as they, described four features of learners after applying SRSD as follows: (a) better writers tend to be more self-regulated; (b) novice writers become more self-regulated with age and practice; (c) level of self-regulation is related to writers' performance, and (d) struggling writers can become successful through targeted writing and SRL instruction with multiple opportunities to practice new skills.

Furthermore, many researchers approved the significant benefits of using self-regulation learning skills for enhancing bio/medical scholars and practitioners' lifelong learning practices (Brydges & Butler, 2012; Lucieer, et. al., 2016; Bransen, et al., 2020). Scholars, researchers, and scientists in bio/medical fields are expected to acquire self-regulation learning skills for their lifelong learning and training. It is well known that scholars, practitioners, and physicians have to keep qualified standards in patient health care good practices, research integrity, scientific writing and publication skills and this will not happen without lifelong learning and training.

**2- Academic Integrity**

The majority of academicians, educators, instructors, and stakeholders are all aware that research misconduct is a critical and multifaceted problem in higher education in general and in the bio/medical

field in particular over the past years. Academic dishonesty, academic misconduct, scientific dishonesty, scientific misconduct, research misconduct, and misconduct in medical research are all concepts for "academic integrity".

As academic integrity is still a multifaceted issue in the research area and it indeed needs more investigation and support from all academicians, researchers, and educational stakeholders all over the world. Moreover, academic integrity gets great interest recently from different fields of research and is considered to be a new term that the researchers try to observe and investigate its values, principles, policies approaches & strategies and effectiveness in the educational research field. Scholars and researchers all over the world started to investigate this topic and its related issues to gain experiences from the existing research and adjust it to their specific fields.

Academic integrity and research ethics are strongly tied concepts that have been explained as follows: Logically coherent positions on ideal moral behavior, backed by actions that demonstrate this position, practiced by individuals or institutions …. (Jordan, 2013, 252). This means that academic integrity and research ethics are two sides of the same coin and their main aim is to accomplish well-written scientific research. And both of them shared the same values and principles that are considered to be a fundamental factor in the teaching/learning experience, the publication process, conducting research, and all types of academic work. As well as they represent the commitment to moral code in the academic world and its six main values which are honesty, trustworthiness, fairness, respect, responsibility, and courage.

Academic integrity educational strategies emphasize encouraging students' academic knowledge acquisition; confirming staff professional improvements toward academic integrity teaching, implementing integrity policy, enriching curriculum; and being linked with institutional regulation for controlling learners' academic misconduct. There are four main teachings and learning strategies for academic integrity in higher education which are institutional strategy, multidimensional strategy, holistic strategy, and systematic strategy (Bretag & Mahmud, 2016; Morris et al., 2016) as illustrated below.

*A) Institutional strategy*

Institutional integrity is defined as institutional "moral coherence"; in other meaning, the institution's structures, procedures, and practices are

soundly connected to and flow from an institutional mission, purpose, or intent (Selznick, 1992). Macdonald & Carroll (2006) defined the "institutional strategy" as it "embodies" the academic integrity teaching and learning strategy that focuses on student education. This strategy is concerned with determining the duties of faculty staff, departments, academicians, IT specialists, and faculty administrators and supporting them with the desired educational goals toward academic integrity. The faculty staff improvements regarding academic integrity and its policy will be the cornerstone to support teachers and educational advisors in promoting and formulating teaching methods and assessment forms regarding academic integrity.

Gallant (2008) confirmed the need for teaching and learning strategy in terms of "institutional practices," including training for teaching staff, and significantly that "Changes are made to the tenure and promotion practices to ensure faculty work and teaching and learning integrity is appropriately rewarded" (p. 103). If there lacks an institutional commitment toward integrity, then individual commitment to integrity will also be challenged. This does not mean that individuals cannot behave with integrity within institutions without integrity, but it would not be easy to act ethically.

*B) Multidimensional strategy*

Gallant (2008) called academic integrity a "teaching and learning imperative" and designed the "*multidimensional strategy*" which is consisted of four key elements (internal, organizational, institutional, and societal), that have an impact on dealing with the academic misconduct issue in higher education. This strategy assured the importance of "institutional strategy" as it is the educational environment that includes pedagogical and assessment approaches, and support for learners regarding academic integrity. However, the two strategies which are "rule compliance" and "integrity" showed unsuccessfulness in facing the behaviors of academic misconduct, as well as those two strategies did not identify the complexity of the academic integrity concept.

And because of this Gallant revealed the multidimensional strategy which is "a … strategy that addresses academic misconduct by focusing on ensuring that students are learning rather than stopping them from cheating. This strategy includes the disciplining of misconduct … and the development of students' ethical reasoning but expands organizational responses to include the improvement of instruction … and the

enhancement of institutional support" (p. 101). Moreover, Gallant asserted the need for including an "organizational actions" strategy in which offering training for staff, and that will cause in which "changes are made to the tenure and promotion practices to ensure faculty work and teaching and learning integrity is appropriately rewarded" (p. 103).

*C) Holistic strategy*

East (2009) mentioned the importance of showing academic integrity advancements as a holistic and associated strategy that provides great assistance in the advancement of an honest society within the university. Morris et al. (2010) indicated that "a holistic strategy" is more required for higher education institutions to the implementation of academic misconduct regulations and policies are not necessarily considered as a punishment, but an alarm for the required actions for further skills enhancements of learners' academic violations cases; offers a number of learning situations for learners to develop academic and research skills related to scientific writing, and publishing, and help in designing a holistic curriculum by improving the mentoring and assessment approaches with the focus on facilitating student learning to engage them with the approved practices of academic integrity".

*D) Systemic strategy*

The holistic strategy is considered suitable for confronting the problem of cheating as mentioned by (Bretag and Harper, 2018). They also called for a "systemic strategy" to be applied in higher education institutions, and that is because academic integrity is related to most institutional practices and processes such as student recruitment; policy and procedures; teaching and learning activities; engaging with students; the staff academic improvements; and the applications of technology (e.g. Turnitin and iThenticate software). They insisted on the necessity of implying an institutional strategy in academic institutions with the integration of the third parties' outsourcing assessment to avoid all academic misconduct types committed by students.

3- Online Learning

Online learning has been used in teaching and learning the English language as a foreign or a second language in the last 20 years (Rankin, et. al. 2013; Greenland & Moore, 2014). Furthermore, the different online education technology systems which evolved a long time ago, make it easy for learners and teachers to be connected at any time and any place with interactive engagement. Self-directed learning is an informal learning

method. Livingstone (2000) mentioned that self-directed learning is a method in which the presence of an instructor is not required for learners as they can learn themselves. The process of self-directed learning is based on the learners and this kind of learning is distinguished from traditional learning and it can be performed at any place and at any time. Based on recent studies, self-directed learning in the workplace raised over time and valued to be about 90% of individuals used (Lohman, 2000); while, there are limited studies about the effectiveness of self-directed learning for learners in higher education (Selwyn, Gorard, & Furlong, 2006).

John & Wheeler (2008) assumed that many people in the 21st century will prefer self-directed learning and the developments in technology and its methods will support and encourage this transformation. Furthermore, the vital role of information and communication technologies (ICTs) take the lead in simplifying the learning processes in all life learning stages, which will result in raising an educated society. Furthermore, lifelong learning is appeared to be a consequence of the advancements in technology instruments that focus on enhancing individuals' learnings by themselves (Selwyn, Gorard, & Furlong, 2006). And there are a great number of approved points of view about lifelong learning's benefits and significance in raising awareness about self-directed learning's impact on education.

Bonk et al. (2014) examined the effectiveness of using self-directed learning integrated with an online course. While the increase of the online open educational resources for self-directed learning revealed the necessary need for investigating the effectiveness of online self-directed learning practices with its barriers, reasons, and elements for success. The results of 159 collected surveys indicated that online learners are willing to identify their own learning goals and are internally motivated to learn to promote in their works or their own lives. They added that the main reasons to join these online self-directed learning are because of career advancement, self-development, understanding of a particular subject, goal satisfaction, etc.

Online learners should be more independent learners that is because the online learning nature depends on self-directed learning (Serdyukov & Hill, 2013). Therefore, online learners have the characteristics of self-generated ability to control, manage, and plan their learning outcomes. Such a regulatory process has been referred to as self-regulated learning (Zimmerman, 2008).

## Statement of the Problem

Based on the researcher's work experience, results of the pilot study, and the review of literature, the research problem was stated as follows: Bio/medical scholars who are pursuing their MA and PhD degrees at Mansoura University face different challenges such as poor English proficiency levels, poor experience with scientific writing skills, and unawareness of academic integrity skills. In addition, they need to publish their research articles in high-impact journals to meet those degrees' requirements and avoid publication retraction.

**The research questions will be addressed as follow:**

1. What is the impact of an interventional training program in promoting medical scholars' academic integrity, and self-regulation knowledge?
2. Is there a connection between academic integrity, and self-regulation at the start and the end of the interventional training program?
3. What is the participants' opinion of the online training program's effectiveness?

## Significance

The present research would contribute to:

1. Pointing to the need for inclusion of academic integrity and self-regulation learning skills in all undergraduates, and graduates of medical/biomedical higher education programs.
2. Enriching literature with this research concerning the use of an online training program to enhance academic integrity, and self-regulation learning skills.
3. Providing ESL curriculum designers in higher education with a new effective learning strategy that will help in promoting academic integrity.
4. Paving the way for other researchers to do more studies on the effectiveness of using online training programs to enhance academic integrity, and self-regulation learning skills.

## Method

### 1) Research method

The current research used a quasi-experimental one-group pretest-posttest design to assess the influence of implementing an online training program to promote academic integrity and self-regulation abilities in health practitioners. Participants included a group of bio/medical researchers from

Mansoura University who were working on research papers for their MA or PhD or MD degrees. The suggested program was implemented in the targeted sample. Before and after the program's implementation, the sample was given pre-post questionnaires and they also got a program satisfaction questionnaire at the end of the implementation.

**2) Participants**

The research sample was sixty bio/medical scholars with a distribution of 53.3% MA, 23.3% PhD, and 23.3% MD degrees from the faculties of (Medicine 45%, Dentistry 6.7%, Nursing11.7%, Veterinary 20%, and Pharmacy 16.7%) at Mansoura University in Egypt. The sample consisted of 30% scholars, 26.7% assistants, 11.07% lecturers, and 31.7% residents.

**3) Instruments**

The following instruments were designed by the researcher and were used in the current study. They were approved by the jury members who work in the biomedical fields:

1) The pre and post-questionnaire “AI, and SR”.
2) Perception & satisfaction questionnaire of (the AI & SW Online Training Program).

**4) Data collection procedures**

Sample go through the online training course online "Academic Integrity and Scientific Writing". The sample was given a pre-and post-questionnaire at the start and end of the implementation. The sample answered a program satisfaction questionnaire at the end of the program. The researcher gathered and analyzed data using the Statistical Package for Social Sciences program (SPSS) (version 23) after the respondents finished the suggested program.

**Results and Discussion**

**1) Program effect on academic integrity, and self-regulation attitudes**

Changes in academic integrity and self-regulation are assessed before and after the treatment is administered. Table 1 shows that the t-test results for academic integrity (7.12, 7.55, 7.54, 7.54, 9.04, and 7.58) and self-regulation (8.94, 11.76, 6.28, 7.32, and 6.32) were all statistically significant at the 0.01 level. This indicates that there were considerable differences between the attitudes questionnaires before and after administration. These variations might be attributed to the online program's administration.

**Table 1:** ***Comparison of the pre and post-experimental group results of AI, and SR perceptions questionnaire***

| **Academic Integrity** | | **M** | **SD** | **t** | **df** | **N** | **Sig.** |
|---|---|---|---|---|---|---|---|
| Honesty | pre | 4.70 | 1.35 | 7.12 | 59 | 60 | .000 |
| | post | 5.69 | 0.57 | | | | |
| Trust | pre | 4.72 | 1.35 | 7.55 | 59 | 60 | .000 |
| | post | 5.96 | 0.51 | | | | |
| Fairness | pre | 4.72 | 1.35 | 7.54 | 59 | 60 | .000 |
| | post | 5.95 | 0.51 | | | | |
| Respect | pre | 4.72 | 1.35 | 7.54 | 59 | 60 | .000 |
| | post | 5.98 | 0.51 | | | | |
| Responsibility | pre | 4.55 | 1.17 | 9.04 | 59 | 60 | .000 |
| | post | 6.00 | 0.63 | | | | |
| Courage | pre | 4.72 | 1.35 | 7.58 | 59 | 60 | .000 |
| | post | 5.98 | 0.48 | | | | |
| **Self-regulation** | | **M** | **StD** | **T** | **df** | **N** | **Sig.** |
| Planning | pre | 4.51 | 1.16 | 8.94 | 59 | 60 | .000 |
| | post | 5.98 | 0.60 | | | | |
| Monitoring | pre | 4.78 | 1.00 | 11.76 | 59 | 60 | .000 |
| | post | 6.28 | 0.31 | | | | |
| Self-control | pre | 4.78 | 1.15 | 6.28 | 59 | 60 | .000 |
| | post | 5.95 | 0.90 | | | | |
| Self-reflection | pre | 4.74 | 1.34 | 7.32 | 59 | 60 | .000 |
| | post | 6.04 | 0.56 | | | | |
| Expected outcomes | pre | 4.87 | 1.35 | 6.32 | 59 | 60 | .000 |
| | post | 6.03 | 0.65 | | | | |

**2) The connection between academic integrity and self-regulation at the start and end of the program.**

As illustrated in Table 2, the correlation between academic integrity and self-regulation before implementing the program was significantly correlated with ($r= 0.744$, with $p < 0.01$), thereby they were correlated prior to implementing the proposed program.

**Table 2: The correlations of pre-administration of the (AI, SR) questionnaire**

| | 1 | 2 |
|---|---|---|
| 1. Academic integrity (AI) | 1 | |
| 2. Self-regulation (SR) | 0.744** | 1 |
| **Note**. ** = p < .01 | | |

Looking at Pearson's correlation results for post-administration of the program (see Table 3), academic integrity and self-regulation (r= 0.881, p < 0.01) are correlated significantly. As well as, the correlation between AI, SW, and SR still exists in the pre and post-implementation of the program and even the rate of correlation raises after the implementation of the program.

**Table 3: The correlations of post-administration of the (AI, SR) questionnaire**

| | 1 | 2 |
|---|---|---|
| 1. Academic integrity (AI) | 1 | |
| 2. Self-regulation (SR) | 0.881** | 1 |
| **Note**. ** = p < .01 | | |

The significance of the correlation changes for academic integrity and self-regulation are estimated with Fisher-z transformation. The correlations between academic integrity and self-regulation were significantly increased (z = -2.78, p < 0.01) over the 10-week-program.

**3) Participants' opinions regarding the effectiveness of the online program**

Figure 1 shows the participant's reactions regarding their satisfaction with the proposed program. The highest average was granted for question fifteen, with a mean of 4.63. While the lowest mean was awarded for question eight with a mean of 3.85. In general, the bio/medical scholars were satisfied with the academic integrity and scientific writing online training program.

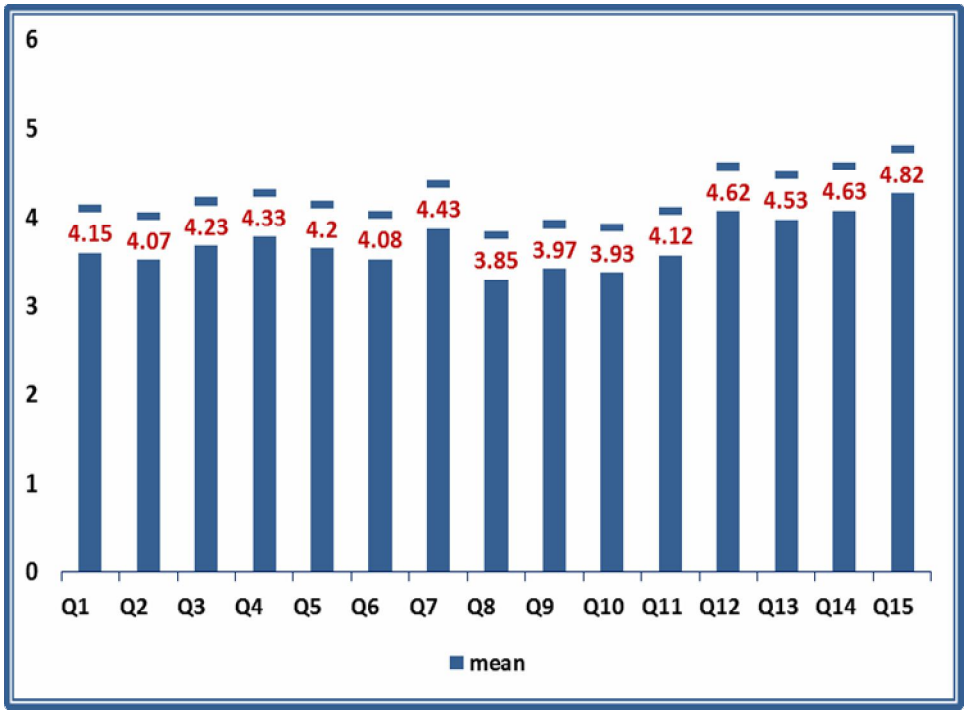


**Fig. 1: Descriptive statistics for participants' perceptions regarding the effectiveness of the online program**

Based on the statistical analysis of the AISWSR questionnaire, it was clear that the experimental group outperformed in the post-administration of the questionnaire, and the t-values were highly significant at the 0.01 level. These findings indicate that the proposed program proved to be more effective in developing the participants' perceptions of academic integrity, scientific writing, and self-regulation.

The findings of this study on increasing views of academic integrity were consistent with previous research (Kandeel, Et Al., 2011; Ahmadi, 2014; Felaefel, 2015; Rohwer Et Al., 2017; Moustafa, 2019; Bettaieb Et Al., 2020; Ali,2021). Furthermore, the perceptions of scientific writing were consistent with previous research (Stetter, 2013; Mccauley, 2015; Bing Et Al., 2016). Furthermore, in accordance with the works of (Zimmerman, 2000; Pintrich, 2000; Biggs, 2003; Harris et al., 2011), the current research followed forethought, performance, and self-reflection phases of forethought, performance, and self-reflection while assessing the attitudes and performance of participants' self-regulation learning skills.

It is worth noting that the connection between the two variables was identified before and after the program was implemented, with a considerable rise in the correlation after the program was implemented. These results indicate that the integration of self-regulation into the academic integrity curriculum will affect greatly (1) the quality of scientific papers in accordance with the research ethics, (2) raise the implementation of self-regulation strategies in the bio/medical fields, (3) promoting academic integrity and avoiding research misconduct, and (4) encouraging lifelong learning skills.

The sample of the research apparently enjoyed the experience of being a part of this AI & SW online training program. The participants rated their perceived satisfaction from online learning as 4.26, which is slightly under the high level of the 5-point Likert scale. This research demonstrates that online programs might be better received when offered at the post-graduate level particularly in the fields of bio/medical as they have no time for attending a traditional program. Furthermore, the participants are interested in the program because of the various methods to improve their learning performances, including self-study, conducting more research, and exploring other online resources.

The participants stated that they had no difficulties dealing with the program interface and its sub-categories and they could start and stop as needed. As the online program is self-guided with interactive modules designed for learners to complete at their own pace. However, the participants are confronted with the problem they must remark where to resume the program, as the place will not be saved between sessions.

The statistical analysis of the results proved that the use of online learning as supportive educational pedagogy makes learning procedures more flexible, more advanced, and more self-directed (Chen, 2011; Nguyen, 2015; Morat et al., 2017; Henderson et al., 2017; Bailey and Lee, 2020).

**Conclusions**

To sum up, a significant improvement was achieved by the experimental group in the pre-post attitudes questionnaire, and the program satisfaction questionnaire could be attributed to some factors. The first was the program covers different issues in the medical fields' research ethics and scientific writing principles. The second was the implementation of online learning pedagogy. The last one was the integration of self-regulation skills into the academic integrity online program.

## References


Ahmadi, A. (2014). Plagiarism in the academic context: A study of Iranian EFL learners. Research Ethics, 10 (3), 151–168.

Ali, M. F. (2021). Attitudes towards plagiarism among faculty members in Egypt: a cross-sectional study. *Scientometrics*, *126*(4), 3535-3547.

Bailey, D. R., & Lee, A. R. (2020). Learning from experience in the midst of covid-19: Benefits, challenges, and strategies in online teaching. *Computer-Assisted Language Learning Electronic Journal*, *21*(2), 178-198.

Bettaieb, J., Cherif, I., Kharroubi, G., & Mrabet, A. (2020). Attitudes towards plagiarism among academics of the faculty of Medicine of Tunis. *Accountability in Research*, *27*(8), 521-537.

Biggs, J. (2003). Aligning teaching for constructing learning. *Higher Education Academy*, *1*(4), 1-4.

Bing, T., Reid, S., & Ivanovic, V. (2016). Paint me a picture: Translating academic integrity policies and regulations into visual content for an online course. *International Journal for Educational Integrity, 12*(2), 1-13.

Bonk, C. J., Lee, M. M., & Sheu, F. R. (2014). Research on self-directed informal learners in open educational environments and massively open online courses. *AECT, Anaheim on November 1 2014*.

Bransen, D., Govaerts, M. J., Sluijsmans, D. M., & Driessen, E. W. (2020). Beyond the self: The role of co‐regulation in medical students' self‐regulated learning. *Medical education*, *54*(3), 234-241.

Bretag T, Mahmud S (2016) A conceptual framework for implementing exemplary academic integrity policy in Australian higher education. In: Bretag T (ed) Handbook of academic integrity. Springer, Singapore, pp 463–480.

Bretag, T., & Harper, R. (2018). Addressing contract cheating: local and global responses. *Project Contract Cheat Assess Design https://cheatingandassessment. edu. au/publications-presentations/. Assessed*, *18*.

Broadbent, J., & Poon, W. L. (2015). Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education*, *27*, 1-13.

Brydges, R., & Butler, D. (2012). A reflective analysis of medical education research on self‐regulation in learning and practice. *Medical education*, *46*(1), 71-79.

Cavalcanti, A., Dourado, R., Rodrigues, R., Alves, N., Silva, J., & Ramos, J. L. C. (2018, October). An analysis of self-regulated learning behavioral diversity in different scenarios in distance learning courses. In *Brazilian Symposium on Computers in Education (Simpósio Brasileiro de Informática na Educação-SBIE)* (Vol. 29, No. 1, p. 1493).

Chen, C. L. A. (2011). Extended implications of technology in second language teaching and learning. *Studies in Applied Linguistics and TESOL*, *11*(2).

Cicchinelli, A., Veas, E., Pardo, A., Pammer-Schindler, V., Fessl, A., Barreiros, C., & Lindstädt, S. (2018, March). Finding traces of self-regulated learning in activity streams. In *Proceedings of the 8th international conference on learning analytics and knowledge* (pp. 191-200).

Committee on Publication Ethics (COPE). Homepage [Online]. http://www.publicationethics.org.uk/.

Dent, A. L., & Koenka, A. C. (2016). The relation between self-regulated learning and academic achievement across childhood and adolescence: A meta-analysis. *Educational Psychology Review*, *28*(3), 425-474.

Dignath, C., Buettner, G., & Langfeldt, H. P. (2008). How can primary school students learn self-regulated learning strategies most effectively?: A meta-analysis on self-regulation training programmes. *Educational Research Review*, *3*(2), 101-129.

East, J. (2009). Aligning policy and practice: An approach to integrating academic integrity. *Journal of Academic Language and Learning*, *3*(1), A38-A51.

Farsani, M. A., Beikmohammadi, M., & Mohebbi, A. (2014). Self-Regulated Learning, Goal-Oriented Learning, and Academic Writing Performance of Undergraduate Iranian EFL Learners. *Tesl-Ej*, *18*(2), n2.

Felaefel, M. T. (2015). A cross-sectional survey study to assess attitudes towards research misconduct among the community of the American University in Cairo.

Gallant, T. B. (2008). Academic Integrity in the Twenty-First Century: A Teaching and Learning Imperative. ASHE Higher Education Report, Volume 33, Number 5. *ASHE higher education report*, *33*(5), 1-143.

Greenland, S. J., & Moore, C. (2014). Patterns of student enrolment and attrition in Australian open access online education: A preliminary case study. *Open Praxis*, *6*(1), 45-54.

Harris, K. R., & MacArthur, S. G. C. A. (2011). Self-Regulated Learning Processes and Children's Writing: Vanderbilt University of Delaware. In *Handbook of self-regulation of learning and performance* (pp. 201-216). Routledge.

Henderson, M., Selwyn, N., & Aston, R. (2017). What works and why? Student perceptions of 'useful 'digital technology in university teaching and learning. *Studies in Higher Education*, *42*(8), 1567-1579.

John, P. D., & Wheeler, S. (2008). *The digital classroom: harnessing technology for the future.* New York: Routledge.

Jordan, S. R. (2013). Conceptual clarification and the task of improving research on academic ethics. *Journal of Academic Ethics*, *11*(3), 243-256.

Kandeel, N., El-Nemer, A., Ali, N. M., Kassem, H., El-Setouhy, M., Elgharieb, M. E., ... & Silverman, H. J. (2011). A multicenter study of the awareness and attitudes of Egyptian faculty towards research ethics: A pilot study. *Journal of Empirical Research on Human Research Ethics*, *6*(4), 99-108.

Kizilcec, R. F., Pérez-Sanagustín, M., & Maldonado, J. J. (2017). Self-regulated learning strategies predict learner behavior and goal attainment in Massive Open Online Courses. *Computers & education*, *104*, 18-33.

Kuroki, T. (2018). New classification of research misconduct from the viewpoint of truth, trust, and risk. *Accountability in research*, *25*(7-8), 404-408.

Livingstone, D. W. (2000). Researching expanded notions of learning and work and underemployment: Findings of the first Canadian survey of informal learning practices. *International Review of Education*, *46*(6), 491-514.

Lohman, M. C. (2000). Environmental inhibitors to informal learning in the workplace: A case study of public school teachers. *Adult education quarterly*, *50*(2), 83-101.

Lucieer, S. M., Jonker, L., Visscher, C., Rikers, R. M., & Themmen, A. P. (2016). Self-regulated learning and academic performance in medical education. *Medical teacher*, *38*(6), 585-593.

Lüftenegger, M., Schober, B., Van de Schoot, R., Wagner, P., Finsterwald, M., & Spiel, C. (2012). Lifelong learning as a goal–Do autonomy and self-regulation in school result in well prepared pupils?. *Learning and Instruction*, *22*(1), 27-36.

Macdonald, R., & Carroll, J. (2006). Plagiarism – a complex issue requiring a holistic institutional approach. Assessment & Evaluation in Higher Education, 31(2), April 2006, 233-245.

McCauley, A. M. K. (2015). *Academic Cheating Management for Nursing Faculty*. AT Still University of Health Sciences.

Morat, B. N., Shaari, A., Abidin, M. J. Z., & Abdullah, A. (2017). YOUTUBE WITHIN ESL CLASSROOM: EXPLORING AN INSTRUCTOR'S AND HER LEARNERS' EXPERIENCES CONCERNING THE AUTHENTICITY OF LANGUAGE AND TECHNOLOGY USE. *Malaysian Journal of Learning and Instruction*, 173-196.

Morris, E., Badge, J., Balshaw, J., Baughan, P., Carroll, J., English, English J, Ireland C, Juwah C, Neville C, Pickard J, Pringle G. (2010). Supporting academic integrity: approaches and resources for higher education. Academy JISC academic integrity service.

Moustafa, P. E. (2019). Curbing the practices of research misconduct: a qualitative study on the perceptions of researchers at Egyptian public institutions.

Mullen, C. A. (2011). Facilitating Self-Regulated Learning Using Mentoring Approaches with Doctoral Students: The University of North Carolina at Greensboro. In *Handbook of Self-Regulation of Learning and Performance* (pp. 151-166). Routledge.

Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *MERLOT Journal of Online Learning and Teaching*, *11*(2), 309-319.

Ning, H. K., & Downing, K. (2010). The reciprocal relationship between motivation and self-regulation: A longitudinal study on academic performance. *Learning and Individual Differences*, *20*(6), 682-686.

Office of Research Integrity. US Department of Health & Human Services (ORI) (2021). Definition of research misconduct.

https://ori.hhs.gov/definition-research-misconduct . [Accessed July, 2021].

Pimple, K. D. (2002). Six domains of research ethics. *Science and engineering ethics*, *8*(2), 191-205.

Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 452–502). San Diego, CA: Academic.

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of educational Psychology*, *95*(4), 667.

Rankin, J. A., Then, K. L., & Atack, L. (2013). Can emergency nurses' triage skills be improved by online learning? Results of an experiment. *Journal of emergency nursing*, *39*(1), 20-26.

Rohwer, A., Young, T., Wager, E., & Garner, P. (2017). Authorship, plagiarism and conflict of interest: views and practices from low/middle-income country health researchers. *BMJ open*, *7*(11), e018467.

Sagasser, M. H., Kramer, A. W., & Van Der Vleuten, C. P. (2012). How do postgraduate GP trainees regulate their learning and what helps and hinders them? A qualitative study. *BMC medical education*, *12*(1), 1-10.

Selwyn, N., Gorard, S., & Furlong, J. (2006). *Adult learning in the digital age: Information technology and the learning society*. New York, New York: Routledge.

Selznick, P. (1994). *The moral commonwealth: Social theory and the promise of community*. Univ of California Press.

Serdyukov, P., & Hill, R. (2013). Flying with clipped wings: Are students independent in online college classes. *Journal of Research in Innovative Teaching*, *6*(1), 54-67.

Sitzmann, T., & Ely, K. (2011). A meta-analysis of self-regulated learning in work-related training and educational attainment: what we know and where we need to go. *Psychological bulletin*, *137*(3), 421.

Stetter, M. E. (2013). Teaching students about plagiarism using a web-based module. *Journal of Further and Higher Education*, *37*(5), 675-693.

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In *Handbook of self-regulation* (pp. 13-39). Academic Press.

Zimmerman, B. J. (2008). Investigating self-regulation and motivation: historical background, methodological developments, and future prospects. *American Educational Research Journal, 45*(1), 166–183.

Zimmerman, B. J., & Kitsantas, A. (2002). Acquiring writing revision and self-regulatory skill through observation and emulation. *Journal of educational psychology*, *94*(4), 660.