

Port Said Journal of Educational Research (PSJER)
2024, VOL. 3, Issue no. 2, 67-82.
DOI: 10.21608/psjer.2024.264887.1032



Differences in the Effectiveness of Guidance and Attitudes towards Learning, Studying, and Academic Achievement According to the Guidance Method

Dr. Adel M. ElAdl

Professor of Educational Psychology

Faculty of Education, Zagazeg University

eladladel@gmail.com

Abstract

Interactive academic advising means building an interactive electronic environment that achieves an effective advising system for moving from traditional advising to interactive electronic advising. The current study aims to verify the effectiveness of using electronic counseling platforms in achieving greater benefits from the counseling process among university students. The quasi-experimental approach was used on a sample of 82 university students. The experimental group (EG) consisted of 39 students to whom interactive academic electronic guidance was applied, while the control group (CG) consisted of 43 students to whom traditional face-to-face guidance was applied. In both groups, the students' socioeconomic status, intelligence, and previous academic achievements were approximately the same. The ages of the students in both groups ranged from 20 to 22 years. The Raven Matrix Scale, which consists of 60 matrices, was used to measure intelligence. A questionnaire on the extent of benefit from academic guidance, students' attitudes towards study (prepared by the researcher), and obtaining the students' cumulative average (GPA) in the end-of-term exam. The results of the study indicated that there are statistically significant differences between students in the experimental and control groups in the extent of benefit from academic guidance, students' attitudes toward study, and students' cumulative average (GPA) in favor of students who use interactive academic electronic guidance. The researcher recommended using interactive academic guidance in all universities; and training faculty members to use this type of guidance with all students.

Keywords

Interactive academic electronic guidance - Traditional guidance - Effectiveness of guidance - students' attitudes towards learning and study - students' cumulative average (GPA).

Introduction

Interactive academic electronic guidance is characterized by the fact that it works to build an interactive climate that enhances interactive electronic academic guidance with its multiple components, which we offer as an alternative to traditional academic guidance: academic, psychological, and social (Kalamkarian and Karp, 2015). Interactive counseling aims to enrich the counseling process with discussions, opinions, and experiences within the rules and regulations that govern the entire counseling process (Swecker et al., 2013). The elements of the counseling process will not be complete unless the counseling process is freed from time and space. This would work to make interactive academic electronic guidance strong, enhanced, and flexible in helping the student solve the problems faced (Rickinson, 1998). The development of informatics and e-learning has contributed to the development of many sciences, and has added new means and methods that have become an essential component of the educational and guidance process in the areas of information exchange and communication. The presence of interactive e-learning and guidance platforms makes the educational and guidance process more exciting and interactive, making it an important component of development (Karp & Stacey, 2023).

Many institutions have developed so-called e-learning programs for students, and these programs move in one direction without any interactive mechanism between the mentor and the student. These targeted programs address students on a single scale and attempt to provide as many problems and solutions as possible to deal with as many students as possible (Whelley et al., 2003). There are some initiatives to activate electronic guidance through the work of the relevant forums. (Varney, 2012, 2023). All of these attempts also suffer from a severe deficiency in the basic elements that make up effective and fruitful electronic guidance.

Review of related research

In order to activate the electronic guidance process, it is necessary to provide an electronic platform for academic guidance that contains the following elements: (Perrin, 2006; Young et al., 2013; Bracco et al., 2015).

1. Electronic study plans with their components of compulsory and elective courses, prerequisites, and parallel requirements.
2. The student's academic achievement information containing information about the cumulative average, the courses he passed, the courses he did not pass, their conformity with the student's plan, the student's readiness for training, completion of graduation projects, and the number of hours required for that (Hendey, 1999).
3. Mechanisms for improving student educational achievement by proposing an integrated electronic program.
4. The possibility of interaction between the advisor and the student through an electronic communication program to solve the social and psychological problems that may hinder the student during his studies (Young-Jones et al., 2013).
5. Providing all instructions, controls and guidelines for the advisor, and student through an electronic evidence base that can be easily browsed and dealt with (Higbee et al., 2005).
6. The presence of programmers, questionnaires and initiatives at the advisor, department, college, and institution levels that help students interact positively with the university environment and also as feedback to the institution to identify the problems facing students and find appropriate solutions (Isman et al., 2007).

Technology and innovation in layout designs often reveal a lack of knowledge about alternatives or options for student inquiries outside the classroom. (Allen et al., 2013). The

use of information and communication technology (ICT) which should be essential, according to the teaching profile within the Research Ethics Information Management System (RIEMS), is not yet established as a teaching tool, mostly due to unfamiliarity with teaching strategies using technological resources. (Zerme and Gutierrez, 2018).

These synchronous and asynchronous electronic interactions have a significant impact on students' opinions, understanding, decisions, and overall thoughts. As information technology has become the most important source of knowledge, information, and data in the current era, the era of knowledge explosion (Ozad and Kutoglu, 2010). With the development of information technology and globalization, the world became a small village, and it overcame the factors of time and place, and affected the economic, social, political, administrative, cultural, and educational factors(İşman, 2003); (Isman et al., 2004). . Life systems developed and differed from before, and communication between people increased after overcoming the factors of time, place, communication, and interaction (Eshman et al., 2004). According to Kezar (2022), Crum et al. (2014). The system of society has changed and the traditional family structure and the closed, cohesive system of families have changed. People moved to cities because of the enormous potential for life in cities, especially the largest ones, and thus the population in these cities increased in terms of quantity rather than quality, leading to the emergence of a weak and ineffective society; a society suffering from many difficulties, in which people in general and students in particular face difficult problems (Jusuf, 2005). Therefore, providing traditional guidance is not enough, as it does not keep pace with the amazing developments in the era of knowledge explosion. (Das and Ghosh, 2011). Information technology and interactive communication must be used to provide appropriate levels of interaction, guidance, and academic and psychological counseling.

The electronic platform must be characterized by many characteristics that help implement the concept of electronic guidance, the most important of which are: (King, 2023), (Mishra, 2021), (Feghali et al., 2011).

1. Ease and flexibility in presenting and processing information.
2. Containing the most important elements necessary for integrated electronic guidance.
3. Suitability for development, programming, and configuration according to need and the nature of the institution.
4. The presence of an integrated electronic management system linked to information and data.
5. Compatibility such that it can be installed on most networks operating in educational institutions of various types
6. The availability of an excellent security factor for storing, retaining and copying data and preventing its loss or theft.

Research problem

One of the basic needs that university students need in order to be able to overcome the difficulties and contemporary problems they face in the eras of information and technology is the use and employment of electronic and interactive learning and guidance (Krumm et al., 2014). Accordingly, we can formulate the problem of the current research in the following questions:

1. Are there statistically significant differences at the level ($\alpha \geq 0.01$) between interactive academic electronic guidance and face-to-face guidance in increasing the effectiveness of the learning and guidance process?

2. Are there statistically significant differences at the level ($\alpha \geq 0.01$) between interactive academic electronic guidance and face-to-face guidance in the attitude towards learning and studying?
3. Are there statistically significant differences at the level ($\alpha \geq 0.01$) between interactive academic electronic guidance and face-to-face guidance in increasing students' cumulative grade point average (GPA)?

Research aims

1. Detecting the extent of the impact of the use of electronic counseling platforms in overcoming the counseling practice difficulties among university students
2. Examining the differences between of the interactive and traditional counseling in the attitude towards the study.
3. Determining the differences between interactive and traditional counseling in the student's grade point average (GPA).

The Importance of the research

Information technology has caused a significant change in people's aspirations in all aspects of economic, intellectual, political, cognitive, social, and cultural life (Hendi, 1999). This change includes desirable and undesirable aspects, and the classification of this change depends on the values and beliefs of each society (Perin, 2006). This change also affected the quality of the human capital of each society and the quality of life and education (Skye, 2011). There is no doubt that success will be achieved by societies with high human potentials while other societies will fail. Only societies with high human capacities that enjoy strong, effective and high-quality technological systems have succeeded and developed. And are able to face life's difficulties (Youssef, 2005). However, information technology is not a

set of tools and physical capabilities, but rather a method of performance, communication, interaction and exchange of experiences, in addition, it means modernity and contemporaneity (Gudep, 2007). It provides technology, information, knowledge and data to humans, and also provides them with more opportunities to develop all activities and life styles (Eshman, 2003).

Hypotheses

The present research investigated the following three hypotheses:

1. There are statistically significant differences in the counseling practice difficulties due to using electronic counseling platforms.
2. There are statistically significant differences in attitudes towards learning and studying due to the use and employment of interactive electronic learning and guidance compared to face-to-face guidance.
3. There are statistically significant differences in student's grade point average (GPA) due to using electronic counseling platforms.

Method

Research method

The quasi-experimental method was used. The interactive academic electronic guidance was applied to the experimental group, while the traditional guidance was used with the control group. After applying the experiment and the students answering the questions of the study tools, the researcher analyzed the data obtained.

Participants of the research

The sample to verify the psychometric properties of the tools was 37 students, and the participants to verify the validity of the hypotheses in this study were 82 university students.. Group 1 (Experimental group) consisted of 39 students, using interactive counseling while group 2 (Control group) consisted of 43 students, using traditional counseling. In both groups, students' social, and economic statuses, intelligence and previous academic achievement were nearly the same. The students' ages in both groups ranged from 20 to 22 years.

Research tools

1. *Raven matrix*. The Standard Raven matrix was used, which contains 60 shapes distributed into 5 groups A, B, C, D, and E to give a quick indicator of an individual's intelligence, which consists of basic images with a missing part. Each basic picture is followed by 6 alternatives. One of these alternatives completes the picture and is the correct answer. The student must pay close attention to the pictures and alternatives so that he can reach the correct answer. Raven (1986).
2. *The Academic Advising Effectiveness Questionnaire* was used to measure the difficulties of academic advising based on the students' points of view and opinions. The researcher built the questionnaire through the theoretical framework of research and previous relevant research and standards. The questionnaire was applied and is a self-report that includes (32 items) followed by estimated alternatives. Scores are based on a four-point Likert scale. The validity of the questionnaire was verified through the opinions of experts and specialists, and the validity of the questionnaire was verified by calculating its validity, as well as calculating its reliability using internal consistency with the Alpha Cronbach equation, that reached (0.87). The

students' responses to the items, which varied between positive and negative, were evaluated and the scores were collected to give the total score for the questionnaire.

3. *Questionnaire of students' attitudes toward study* (prepared by the researcher) through referring to previous relevant research literature, studies, and standards, and through the student's self-report. The final version of the questionnaire contained (29) items including data on students' opinions. Scores are estimated according to a four-way Likert scale (from 1 = completely disagree to 4 = completely agree). The validity of the questionnaire was verified by obtaining the opinions and suggestions of experts and specialists, verifying the validity of the questionnaire using the stratified mean differences, and verifying the reliability of the questionnaire using the internal consistency equation, Cronbach's alpha, and it reached (0.85). These results are a good indicator of the suitability of the questionnaire in the current study.
4. *Students' grade point average (GPA)*, it was obtained from their academic records at the Faculty of Education, Zagazig University, from the results of the end of the second semester of 2023.

Results and findings

Below are the answers to the research questions:

The first question: Are there statistically significant differences at the level ($\alpha \geq 0.05$) between interactive academic electronic guidance and face-to-face guidance in increasing the effectiveness of the learning and guidance process? To answer the first question, a t-test was used to verify the presence of differences between the two control groups in the use and employment of interactive academic electronic guidance.

Table1

Results of the t-test for differences between the control and experimental groups in the effect of using and employing interactive academic electronic guidance services (IAGS)

Test	Interactive	Traditional	T	Sig.
(IAGS)	123.67	105.57	8.79**	0 .000

Note: **P <0.01

It is clear from (Table 1) that interactive academic electronic guidance services (IAGS) has have a statistically significant effect. The results showed that there are statistically significant differences for interactive academic electronic guidance services (IAGS) ($t=8.79$, $p < 0.01$). Therefore, this is sufficient evidence to verify the validity of the first hypothesis, as there is a statistically significant differences in the averages between the control and experimental groups in the effect of interactive academic electronic guidance services (IAGS) in favor of interactive academic electronic guidance. The effect size was strong, reaching 0.7.

Note: Effect size (Cohen's d) where the effect size is strong ≤ 0.8 , moderate effect size ≤ 0.5 , weak effect size ≤ 0.2

The second question: Are there statistically significant differences at the level ($\alpha \geq 0.05$) between interactive academic electronic guidance and face-to-face guidance in the attitude towards learning and studying? To answer the second question, a t-test was used to verify the presence of any differences between the control and experimental groups in attitudes toward learning and studying.

Table 2

Results of the t-test for differences between the control and experimental groups in attitudes toward learning and studying (ATLS)

Test	Interactive	Traditional	T	Sig.
(ATLS)	107.87	93.81	9.18**	0 .000

Note: **P <0.01

It is clear from the results (Table 2) for the attitude towards learning and studying (ATLS), that there is a statistically significant difference for (ATLS) ($t=9.18$), $p < 0.01$). This is sufficient evidence to verify the validity of the second hypothesis, as there is a statistically significant difference between the control and experimental groups in (ATLS) in favor of interactive electronic academic guidance. The effect size was strong, reaching 0.8.

The third question: Are there statistically significant differences at the level ($\alpha \geq 0.05$) between interactive academic electronic guidance and face-to-face guidance in increasing students' cumulative grade point average (GPA)? To answer the third question, a t-test was used to verify the presence of any differences between the control and experimental groups in (GPA).

Table 3

Results of the t-test for differences between the control and experimental group's grade point average (GPA).

Test	Interactive	Traditional	T	Sig.
(GPA)	3.23	2.41	5.73*	0 .01

Note: *P <0.05

It is clear from the results (Table 2) for the cumulative grade point average (GPA), that there is a statistically significant difference for (GPA) ($t=5.73$), $p < 0.01$). This is sufficient evidence to verify the validity of the third hypothesis, as there is a statistically

significant difference between the control and experimental groups in (GPA) in favor of interactive electronic academic guidance. The effect size was strong, reaching 0.6.

Discussion

The research indicates that electronic advising gives special support to students, as Robinson (2009) says; the speed at which information technology has become has made reaching students an easy and quick matter; Thus, it is possible to give a large number of students electronic guidance at the same time and reach a large number of them in a short period of time. Information technology plays a major role in all stages of life, regardless of the age of the recipients of the services, and therefore it contributes an important role in the continuation of life, and it applies This applies to university studies, as university students need broader counseling services compared to others (Godeep, 2007). As well as all other stages of education; Academic guidance is an integral part of the educational process. Electronic academic guidance contributes to revealing individual differences among learners.

One of the objectives of the current research was to survey the opinions of students and their advisors about the effectiveness of providing online guidance services, meaning providing academic and general guidance via social networking sites. The results confirm the importance of interactive academic advising in the quality of students' university and academic life, the students' need for these services, and the desire of advisors to provide academic advising services through this important medium (Wiley, 2003). Due to the increase in the number of students and the difficulty of reaching all of them in light of traditional guidance. In addition to the lack of time to provide guidance services to all students, academic advisors preferred to provide interactive guidance via the Internet as opposed to face-to-face guidance. This contributes to overcoming many of the difficulties faced by face-to-face guidance, or what is called traditional guidance, as opposed to

synchronous and asynchronous interactive guidance (Sky et al., 2011). Here it is possible to reach a large number of students without being bound by a specific time. Each student can benefit from the guidance service provided according to what his time and effort allow.

Conclusion

Information technology has become an integral part of people's lives, rather it is life, and therefore everyone should try to make the most of it. The research examined the extent of the impact of interactive group counseling via the Internet versus traditional face-to-face counseling. The complexities of life and the difficulties of dealing with them have increased, especially in educational and university life. Therefore, there is an increasing need to provide intensive interactive guidance services, which are difficult to provide to all students face to face. Such issues have a major impact on the progress of the educational process, and traditional guidance may lead to worsening educational problems. Therefore, it is difficult to control them unless you provide them with extensive interactive instructions online (Bailey et al., 2010). The opinions of students and advisors about interactive advising via the Internet were discussed, and the opinions of students as well as advisors supported the importance of interactive academic advising via the Internet synchronously and asynchronously.

Recommendations

Based on the results of the current research, the following recommendations can be made:

1. Emphasis should be placed on the use of interactive electronic academic guidance to develop educational outcomes for its role in helping students during their university academic life.

2. Focus on interactive electronic development in the field of informatics and social communication to move to interactive electronic academic guidance and employ its platforms to facilitate access to the necessary information, data and ideas.
3. Interactive electronic academic advising should be a priority for all universities, colleges and higher institutes and work to activate and employ its role in supporting academic advising.
4. Academic guidance should include both the academic advisor and the student, as well as enhancing the educational and guidance process that motivates students to participate effectively.

References

- Allen, J.M., Smith, C. L., & Muehleck, J. K. (2013). What kinds of advising are important to community college pre-and post-transfer students?. *Community College Review*, 41, 330–345. <https://doi.org/10.1177/0091552113505320>
- Bailey, T., Jeong, D. W., & Cho, S. W. (2010). Referral, enrollment, and completion in DE sequences in community colleges. *Economics of Education Review*, 29, 255–270. <https://doi.org/10.1016/j.econedurev.2009.09.002>
- Bracco, K. R., Austin, K., Bugler, D., & Finkelstein, N. (2015). *Reforming developmental education to better support students' postsecondary success in the common core era*. San Francisco, CA: WestEd. <https://files.eric.ed.gov/fulltext/ED559730.pdf>
- Das, M. & Ghosh, C. K. (2011). Academic counselling in distance education: The need and expectations of IGNOU learners. *Indian Journal of Open Learning*, 20(3), 191-216. <https://doi.org/10.1007/s11051-010-0074-4>
- Feghali, T., Zbib, I. & Hallal, S. (2011). Aweb-based decision support tool for academic advising. *Educational Technology & Society*, 14(1), 82–94. <https://doi.org/10.1080/10668926.2020.1798304>
- Gudep, V. (2007). Issues and challenges in academic advising: A multivariate study of students' attitudes towards academic advising in United Arab Emirates (UAE). *Contemporary Management Research*. 3(2), 151-172. <https://doi.org/10.7903/cmr.87>
- Hendey, W. (1999). Developmental advising: A practical view. *The Mentor: an Academic Advising Journal*, 1(1), 30-41. <https://doi.org/10.1037/a0037688>

- Higbee, J. L., Arendale, D. R., & Lundell, D. B. (2005). Using theory and research to improve access and retention in DE. *New Directions for Community Colleges*, 129, 5–15. <https://doi.org/10.2190/CS.14.3.a>
- İşman, A. (2003). Technology. *The Turkish Online Journal of Educational Technology*. 2 (1), 28-33. <https://doi.org/10.11114/jets.v6i9.3363>
- Isman, A., McCormick, L. & Bateman, K. (2007). How technology is integrated into science education in a developing country: North Cyprus case. *The Turkish Online Journal of Educational Technology*. 6(3), 54-60 <https://www.learntechlib.org/p/194668/>.
- Isman, A., Miller, R. M. & Hargraves, K. (2004). The evaluation of students' perceptions of distance education. *The Turkish Online Journal of Educational Technology*. 3(3), 55-61. <https://www.yumpu.com/en/document/view/9508832/turkish-online-journal-educational-technology-tojet>
- Jusuf, H. (2005). Improving teacher quality, a keyword for improving education facing global challenges. *The Turkish Online Journal of Educational Technology*. 4(1), 33-37. <https://files.eric.ed.gov/fulltext/EJ1102409.pdf>
- Kalamkarian, H. S. & Karp, M. M. (2015). *Student Attitudes toward Technology-Mediated Advising Systems*. Retrieved from 21.08.2023 Community College Research Center website: <https://files.eric.ed.gov/fulltext/EJ1149359.pdf>
- Karp, M. J. & Stacey, G. W. (2023). *Designing a system for strategic advising*. Retrieved from 23.07.2023 Community College Research Center website: <https://ccrc.tc.columbia.edu/media/k2/attachments/designing-a-system-for-strategic-advising.pdf>
- Kezar, A. (2022). Higher education changes and social networks: A review of research. *The Journal of Higher Education*, 85, 91–125. DOI: 10.1353/jhe.2014.0003
- King, M. (2023). *Academic advising: Organization and developing services for students*. New York: Joss- Bss.
- Krumm, A. E., Waddington, R. J., Teasley, S. D. & Lonn, S. (2014). A learning management system-based early warning system for academic advising in undergraduate engineering. In J. A. Larusson & B. White (Eds.), *Learning analytics* (pp. 103–119). New York: Springer. <http://hdl.handle.net/2027.42/107974>
- Mishra, S. (2021). Role and competencies of academic counselor in distance education. *The Journal of Open, Distance and e-learning*, 20(2), 147-159. DOI: 10.1080/02680510500094165
- Ozad, B. & Kutoglu, U. (2010). The use Of the Internet in media education. *The Turkish Online Journal of Educational Technology*. 43(3), 185-192. <http://www.tojet.net/articles/v9i2/9225.pdf>

- Perin, D. (2006). Can community colleges protect both access and standards? The problem of remediation. *Teachers College Record*, 108, 339–373. DOI: 10.1177/016146810610800301
- Rickinson, B. (1998). The relationship between undergraduate student counseling and successful degree completion. *Studies in Higher Education*, 23(1), 95–102. <https://doi.org/10.1080/03075079812331380522>
- Robinson, E. (2009). Online counselling, therapy and dispute resolution. *AFRC Briefing*. <http://www.aifs.gov.au/afrc/pubs/briefing/briefing15.html>
- Skye, E.P. (2011). Developing online learning modules in a family medicine residency. *Family Medicine*. 43(3), 185-192. doi: 10.1177/23821205211037756.
- Swecker, H. K., Fifolt, M. & Searby, L. (2013). Academic advising and first-generation college students: A quantitative study on student retention. *NACADA Journal*, 33(1), 46–53. DOI: 10.12930/NACADA-13-192
- Varney, J. (2012). Intrusive advising. *Academic Advising Today*, 30(3), 11–13. <https://nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles.aspx>
- Varney, J. (2023). Proactive (intrusive) advising! *Academic Advising Today*, 35(3), 1–3. <https://nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Proactive-Intrusive-Advising.aspx>
- Whelley, T., Radtke, R., Burgstahler, S. & Christ, T. (2003). Mentors, advisers, role models, peer supporters: Career development relationships and individuals with disabilities. *American Rehabilitation*, 27(1), 42–49. <https://www.thefreelibrary.com/Mentors%2C+advisers+role+models%2C+%26+peer+supporters%3A+career+development...-a0110802886>
- Young-Jones, A. D., Burt, T. D., Dixon, S. & Hawthorne, M. J. (2013). Academic advising: does it really impact student success?. *Quality Assurance in Education*, 21, 7–19. <https://eric.ed.gov/?id=EJ1004439>
- Zerme, M. G. & Gutiérrez, H. F. (2018). The use of educational platforms as teaching resource in mathematics. *Journal of Technology and Science Education, JOTSE*, 8(1), 63-71. DOI: 10.3926/jotse.337