Internet Use and its Impact on Academic Achievement and Social Competence among the Students of the Philadelphia University: A Comparative Study according to Gender, College, and Educational Level

Sanaa Al-Khawaldeh

Abstract

Objectives: The study objectives aimed to identify the impact of internet use on the students of the Philadelphia University in regards to academic achievement and social competence and shed some light on the degrees of this in accordance with the variables of gender, college, and educational level. Methods: Three tools were used to collect the data, which were Internet Use Questionnaire, Social Efficiency Scale, and the Academic Achievement Scale, whereas the Statistical Package for Social Sciences (SPSS) was used to process and analyse the data in question. Setting: The study was conducted in the Philadelphia University. Participants: The population of the study consisted of the students of humanitarian and scientific majors at the Philadelphia University, with a total of (500) participants, who were selected as the sample of the study. Results: Results revealed that there are significant effects of internet use in all of the three questions of the study. This implies that internet use does have an impact on academic achievement, social competence, and on both in accordance with the variables of gender, college, and educational level. Conclusions: The study concludes that the internet has a positive impact on students of the Philadelphia University, and encourages that it should be employed within all educational institutions in the near future.

Keywords: Internet Use, Academic Achievement, Social Competence, Philadelphia University.

Introduction

Information and Communication Technology (ICT) is gradually becoming more prevalent across numerous sectors including the educational sector. It allows people to utilise technologies at hand to improve the learning process and expand access to both education and training within the educational sector. It also facilitates communication as well as processing and transmitting information by electronic means. ICT also includes technologies and approaches that can facilitate storing, processing, managing, and exchanging information.

While many, if not all, educational systems try at the very least to enhance or even radically change, it does not necessarily imply that they all have the means to do so. In any case, there
are several motives that present technology as a crucial component for the educational systems changes, which serve as reasons to consider the ever-growing significance and implications of technology and technology-based school:

1. Technology can implement numerous functions throughout the change process, including providing new opportunities to improve learning and teaching, specifically if it’s affordable to customise learning to meet learners’ different needs;

2. Technology became an important skill to have, especially among adults; people who do not have nor mastered them may suffer from ‘digital divide,’ which will affect their ability to operate and flourish effectively within the new economy;

3. Technology is an essential part to access competencies that are often referred to as the ‘21st Century Skills,’ which are necessary to be productive in today’s society.

1. **Academic Achievement**

   Educational institutions are starting to adjust their teaching and learning processes to become suitable for the technological advances. In addition, such advances are offering revolutionary instruments such as websites as well as interactive audio-visual aid systems. These tools can be assimilated as a new way of teaching, as they can provide teaching resources, which include texts, images, graphics, sounds, animations, and videos, all which can greatly enhance students’ interest in learning and stimulate their understanding and memory of knowledge.

   Nowadays, education encounters numerous challenges in all social, cultural life and economic aspects. The most important challenges of these are education philosophy development, overpopulation, changes in teachers’ roles, illiteracy, shortage in staff members, technological development, and the media. This make teachers employ modern technologies in their teaching strategies in order to be able to face these problems, which can be done by augmenting the level of learning, which can be achieved by providing equal opportunities for everyone wherever and whenever, all while taking individual differences into consideration. To advance the educational productivity, some faculty members sought to make use of technology within education in order to develop the traditional techniques of teaching and employing new methods.

   Higher Education Institutes in Arab countries are disbursing rapidly. This is due to the increasing social demands for better education and prioritising the production of effective and competent human resources that can meet the economy’s requirements. Several approaches have been implemented in order to enhance the quality of higher education in Arab countries, such as the educational shift toward the internet use, so as to overcome the increasing demand and enhance the quality of education, where numerous types of accrediting institutions have been established to examine its quality. In spite of constant endeavours for enhancing higher education through means of the internet, there is still criticism regarding the quality of technology-based education in Gulf Cooperation Council countries and its impact on academic achievement.

3. **Internet Use**

   The Internet is a mean that gathers, processes, stores, sends, and retrieves of information across the globe through broadcast, computing and telecommunications media. It relies on hardware such as computers, smartphones, and modems to function. Its scope also covers the communication aspects such as digital TV and radio, e-mails, broad bands, instant messaging, Global Positioning System (GPD), wired and wireless networks, and video conferencing. It has been found that the Internet is crucial for speedy access and distribution of information regarding education, and thus, is widely used by university students around the globe.
The growth of internet use over the past years has transformed the ways in which most end users experience it. Now that the internet is no longer a one-way broadcast delivery system and is now driven by the activities of its users, the social web is now participatory, and collective activities are reflected in the language used to describe the internet.\footnote{III}

Internet use has developed quickly throughout the last ten years in nearly every country, specifically in Jordan; nowadays, millions of people have a connection to the Internet, as it became the backbone of the information economy. It has various uses, including social, personal, political, and commercial interactions. According to Almarabeh and his colleagues, most students in Jordan access the Internet before attending university and have a positive attitude towards it. However, they mainly use it for going on social media platforms, chatting, and gathering information.\footnote{IV}

Given how easy it became to access the Internet for the majority of people, its uses varied and are no longer limited to visiting social media websites; it is now used for numerous purposes, which can be divided into education and non-education purposes. Education purposes include the use of Internet to expand knowledge, either by watching videos that are related to students’ academic fields or by watching lectures online. On the other hand, non-education purposes usually include the use of Internet for entertainment purposes. For example, watching movies, listening to music, downloading videos and songs, online gaming, and watching TV shows online.\footnote{V}

Since then, the internet was added as an indicator of academic achievement, which relies on the technology-based environment on an institutional level, time spent on the internet, and how it is utilised. If properly established, the technology-based environment of an educational institution would become a key factor in developing a culture that can easily use technology. In spite of the fact that this doesn’t necessarily guarantee academic success, it does, however, enable students to develop good habits that can help them achieve their academic goals.\footnote{VI}

However, the Internet could also be used for non-productive activities. It even has negative consequences on students’ academic performance and social competence; this is due to the fact that students who own a home computer spend most of their time using it for non-productive and entertainment-centred activities, such as gaming, all while the academic use of computers is almost absent, which will inevitably result in negative behavioural outcomes.\footnote{VII}

On the other hand, the Internet can also have an impact on social competence, which is a general concept that consists of cognitive, emotional, behavioural, and social skills. It is regarded as a requisite for effectiveness within social interactions that are associated with successful behavioural patterns. It is also related to the ability to react in various ways and to different situations, learn from old experiences, and applying them to changes within social interactions.\footnote{VIII}

**2. Social Competence**

Social competence can be defined as an inclusive construct that has different features; it refers to emotional-motivational, cognitive, and behavioural aspects, and can be developed in both formal and informal education and within numerous contexts. Therefore, it can be also observed as a major qualification of parents and educators. In regards to the construct of social competence, it can be depicted as the capability to adequately make and preserve positive social results by sorting
out one's very own personal and environmental resources that have relationships to both personality constructs and theories regarding skill development.[13]

Social competence also refers to the individuals' ability to manage the expressions and social behaviours to optimise their social relationships by relying on the social information available. It should be stressed that flexibility in this sense is a necessity for social competence, but is not sufficient, given that the latter implies not only a variation in responses to a certain social stimulus by relying on information but also a demonstration that this variation can be adaptive. It also allows people to convey the appropriate responses, generate, and take advantage of opportunities within the social environment, which enhances their fitness ultimately. Although such capability will enhance social interactions, its developmental and environmental significance has been overlooked.[14]

Unlike the previous times where children were capable of developing social competence via face-to-face interaction, it became inevitable for modern social technologies to have an impact on adolescents’ social competence in one way or another. However, since the internet is a new medium for communication that wasn’t used as frequently in the past, it is still early to determine its impact on social competence. Yet, if the use of internet continues to escalate at the current rate, it might change how people develop their social competence entirely. Eventually, people will spend long periods of their time texting, sending emails and instant messages, social networking, which will reduce the time of direct interaction. This would ultimately lead to poor comprehension of basic communication skills, such as understanding body language and interpreting the tone of the voice.[15]

3. Importance of the Study

Given the widespread use of the Internet within the Jordanian society and among university students in particular, and due to the emergence of problems within this group – on account of weak social relations and the lack of communication skills – such as violence at universities and the inability to communicate with others efficiently. Therefore, such a study, which provides information on a scientific basis on the impact of the Internet on social competence among an important group of society, was needed. So that the institutions concerned with raising youth, such as families, universities, media, and religious institutions assume the task of counselling and spreading awareness regarding the positive effects, and reduce the negative impacts related to the use of this technology.

Linking the Internet to academic achievement may improve academic achievement and address the problems associated with poor achievement, given the network's scope of information and role in providing access to knowledge.

This useful benefit can be achieved through the correct and conscious use by students. Such a study provides specific information on the impact of Internet use on academic achievement based on information that will be collected from students to be analysed. The Internet is characterised by its widespread and depth of effect. It is also considered as a fundamental pillar in education and communication considering the development of knowledge in all countries of the world. These are all reasons that require the study of this phenomenon, including its advantages and disadvantages to make use of the positives and avoid the potential drawbacks. Such can be done through the
activation of the role of student counselling in universities and the organisation of indicative programs that aim to overcome the disadvantages associated with this phenomenon.

4. Methods

4.1. Design

To examine the hypotheses, which were formulated to examine problems with the social security system in Jordan and proposed solutions, Statistical Package for Social Sciences (SPSS) was used in processing the following statistical techniques and tests in data analysis:

1. **Reliability Test for the Instruments of Measurement:** The reliability of a measure highlights the stability of consistency with which the instrument is measuring the concept and helps to assess the 'goodness' of a measure.

2. **Frequencies and Percentages:** To describe demographical variables.

3. **Descriptive Statistical Techniques:** To illustrate respondents to study fields. These included Means and Standard Deviations.

4. **Simple Regression Test:** To explore the direct impacts of variables.

5. **Independent Samples T-Test:** To examine the differences in the sample.

Respondents were asked to read each item, and select one of the choices as follow:

- Score 5: For the (Strongly Agree)
- Score 4: For the (Agree)
- Score 3: For the (Neutral)
- Score 2: For the (Disagree)
- Score 1: For the (Strongly Disagree)

Therefore, it divided into three stages:

- High: For means (1-2.33)
- Moderate: For means (2.34-3.67)
- Low: For means (3.68-5)

The study has also relied on a number of other instruments, which are:

1. **Internet Use Questionnaire:** The researchers will prepare a questionnaire that will measure students' use of the internet by referring to previous literature and tools that measure the phenomenon.

2. **Social Efficiency Scale,**\(^{[16]}\) which includes four dimensions:
   - Compliance with laws and authority
   - Leadership qualifications
   - Social dimension
- Awareness of security and safety matters

3. **Academic Achievement Scale:** The researchers will build a questionnaire that measures the level of achievement among university students by linking it mainly to the cumulative average and the quarterly average, and by using the theoretical literature and previous studies that dealt with the subject such as Tarawneh & Fakhriq's.\(^{[17]}\)

As shown in table (1), the total Cronbach's Alpha for the study fields had high values, which will ensure the stability of the results for this study.

6. **Procedure**

The researchers have coordinated with the university in question to allow them to distribute the study tools to all students of humanitarian and scientific majors. This is because these subjects are university requirements, which are inclusive of students from different faculties and levels. The researchers will then perform the appropriate statistical processing to come up with the results.

Participants.

The population of the study consisted of the students of humanitarian and scientific majors at the Philadelphia University, and the sample was (500) students, as it is classified into its demographic characteristics in tables (2) and (3).

Table (2) shows that the percentage of males from the sample was (42%), while it was (58%) for females.

As for the variable (faculty), table (3) shows it seems that the (scientific) rank achieved (48%), while the (humanitarian) rank achieved (52%).

7. **Results**

To analyse the data and examining questions, descriptive statistics for each field was calculated.

As seen in table (4), the Social Competence instrument achieved a mean of (3.77) and a standard deviation of (0.62), while the Academic Achievement instrument achieved a mean of (3.62) and a standard deviation of (0.66). On the other hand, the Internet Use instrument achieved a mean of (3.78), and a standard deviation of (0.60).

**Question 1:** ‘What is the level of impact of internet use on academic achievement among students of the Philadelphia University?’

The Simple Regression test has been used to check the direct impact of internet use on academic achievement among students of the Philadelphia University.

According to table (5), the result shows that there is significant effect for the internet use on academic achievement among students of the Philadelphia University, because the significant value was (0.000), which is less than (0.05). The value of R is the square root of R-Squared and is the correlation between the observed and predicted values of dependent variable, which was (0.775), and the coefficient of determination R\(^2\) was (0.601). Therefore, about (60.1%) of the variation in academic achievement of students of the Philadelphia University is explained by
internet use and the restriction Parameter (F) was (749.812); thus, we will accept the alternative hypothesis.

**Question 2: ‘What is the level of impact of internet use on social competence among students of the Philadelphia University?’**

The Simple Regression test has been used to check the direct impact of internet use on social competence among students of the Philadelphia University.

According to table (6), the result shows that there is significant effect for the internet use on social competence among students of the Philadelphia University, because the significant value was (0.028), which is less than (0.05). The value of R is the square root of R-Squared and is the correlation between the observed and predicted values of dependent variable, which was (0.098), and the coefficient of determination R2 was (0.010). Therefore, about (1.0%) of the variation in social competence of students of the Philadelphia University is explained by internet use and the restriction Parameter (F) was (4.849); thus, we will accept the alternative hypothesis.

**Question 3: ‘What is the level of impact of internet use on both academic achievement and social competence according to the variables of gender, college, and educational level?’**

- **Gender**

  T-test analysis was used to know the differences between the pair groups as shown in table (7). The table shows the means and SD of both males and females. The table also illustrates that there are significant effects due to the gender in regards to the fact that the level of significance is less than (0.05), and is in favour of male students.

- **Faculty**

  T-test analysis was used to know the differences between the pair groups as shown in table (8). The table shows the means and SD of both scientific and humanitarian students. The table also illustrates that there is no significant effect due to the faculty in regards to the fact that the level of significance is more than (0.05), except for social competence, which significance level was less than (0.05), and is in favour of scientific students.

7.1. Discussion

7.1.1. Principal Findings

As shown in the previously-stated results, the Social Competence instrument achieved mean which reached (3.77), the Academic Achievement instrument achieved mean which reached (3.62), the Internet Use instrument achieved mean which reached (3.78).

The First question stated that ‘What is the level of impact of internet use on academic achievement among students of the Philadelphia University?’ The results revealed that there is significant effect of internet use on academic achievement. This can be interpreted as the internet encourages students to search more for new information, which helps them to improve their skills and maximize their academic achievement.

The second question stated that ‘What is the level of impact of internet use on social competence among students of the Philadelphia University?’ The result shows that there is significant effect for the internet use on social competence. This can be interpreted as that internet
helps students to increase their social circle, and meet new friends, which enable them to improve their social skills, boundaries, and emotional intelligence.

The third question stated that ‘What is the level of impact of internet use on both academic achievement and social competence according to the variables of gender, college, and educational level?’ The result indicates that there is significant effect of the internet use on both academic achievement and social competence due to the gender in favour of male students. This is attributed to the fact that male prefer to use the internet in order to understand their curriculum better rather than their books, improve their achievement, and develop their social skills.

The results also indicates that is no significant effect of the internet use on academic achievement due to the Faculty regarding the point that the level of significance is more than (0.05). This can be interpreted as students in all faculties need to use the internet in order to increase their achievement, furthermore, students in all faculties must use the internet for research and analysis purposes, which help them to understand their curriculum properly.

Furthermore, results revealed there is a significant effect of the internet use on the Social competence in favour of scientific faculty. This can be interpreted as that students in scientific faculty students use internet and technology more than other students, which make them use social media in order to improve their social skills and meet new friends.

7.1.2. Strengths and Weaknesses of the Study

The main strong point of this study is the fact that it was conducted in one of the most renowned universities in Jordan, which also employs technology and the internet use in its teaching methods. Another strong point of this study is its acknowledgement of the impact of internet use on two different variables (academic achievement, social competence), making it broader and more comprehensive.

Thus, the findings of this study serve as important implications that are relevant to those working within an educational setting as well as for researchers who are aiming to commence with similar research in the future.

However, there are some limitations within this study that must be taken into account; first being the human limitation, which was only limited to the students of the Philadelphia University who studied humanitarian and scientific majors. The second limitation would be insincerity and conflict when answering the questionnaire by some of the students, resulting in these questionnaires being excluded by the researchers and not being included in the final analysis.

7.1.3. Future Research

While choosing students of the Philadelphia University who studied humanitarian and scientific majors as the sample of the study was an effective method, it would’ve been better to include a larger sample to ensure better results. It would also be preferable to include other universities that employ technology and internet use in their teaching methods. Further qualitative research would be needed in the future to accurately measure the impact of internet use on academic achievement and social competence.

Further research into the broader impact of internet use and any new outcomes, whether they are positive or negative, would be appreciated by the researchers.
7.1.4. Ethical Approval

This study was conducted with the approval of the administration of the Philadelphia University. Good practice was followed during the entirety of the study process. Aspects such as anonymity, sensitivity, and data protection, were taken into consideration while handling the collected data.

8. References


- Aloraini, S. (2012). The Impact of Using Multimedia on Students’ Academic Achievement in the College of Education at King Saud University. *Journal of King Saud University-Languages and Translation*, 24(2): 75-82.


**TABLES WITH CAPTIONS**

Table (1):
Cronbach's Alpha for the Study Instruments

<table>
<thead>
<tr>
<th>Instrument Number</th>
<th>Field</th>
<th>Value of (α)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Social Competence</td>
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<tr>
<td>2</td>
<td>Academic Achievement</td>
<td>0.921</td>
</tr>
<tr>
<td>3</td>
<td>Internet Use</td>
<td>0.900</td>
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</table>

Table (2):
Demographic Characteristics of the Study Sample (Gender)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Sample</th>
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<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Male</td>
<td>210</td>
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<tr>
<td>Female</td>
<td>290</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
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</table>

Table (3):
Demographic Characteristics of the Sample (Faculty)

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Sample</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td></td>
<td></td>
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</tbody>
</table>
Scientific | 240 | 48 %
Humanitarian | 260 | 52%
Total | 500 | 100.0%

Table (4):
Descriptive Statistics for Identity Styles of Students of the Philadelphia University

<table>
<thead>
<tr>
<th>Field Number</th>
<th>Field</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Level</th>
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<tr>
<td></td>
<td>Social Competence</td>
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<td>0.62</td>
<td>High</td>
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<tr>
<td>F1</td>
<td>Compliance With Laws And Authority</td>
<td>3.8</td>
<td>0.72</td>
<td>High</td>
</tr>
<tr>
<td>F2</td>
<td>Leadership Qualifications</td>
<td>3.6</td>
<td>0.73</td>
<td>High</td>
</tr>
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<td>F3</td>
<td>Social Dimension</td>
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<tr>
<td>F4</td>
<td>Awareness Of Security And Safety Issues</td>
<td>3.7</td>
<td>0.64</td>
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<tr>
<td></td>
<td>Academic Achievement</td>
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<td>Medium</td>
</tr>
<tr>
<td>F1</td>
<td>Cumulative Average</td>
<td>3.6</td>
<td>0.77</td>
<td>Medium</td>
</tr>
<tr>
<td>F2</td>
<td>Quarterly Average</td>
<td>3.6</td>
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<td>Internet Use</td>
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<td>F1</td>
<td>Educational Purposes</td>
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<td>Research Purposes</td>
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<td>F3</td>
<td>Entertainment Purposes</td>
<td>3.9</td>
<td>0.77</td>
<td>High</td>
</tr>
<tr>
<td>F4</td>
<td>Social Media Purposes</td>
<td>3.8</td>
<td>0.65</td>
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Table (5):
Simple Regression Test to Check the Direct Impact of Internet Use on Academic Achievement

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<th>Dependent Variable</th>
<th>R</th>
<th>R^2</th>
<th>F</th>
<th>D F</th>
<th>Coefficients</th>
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<td></td>
<td>Predictor</td>
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<tr>
<td>Academic Achievement</td>
<td>0.775</td>
<td>0.601</td>
<td>749.8</td>
<td>12</td>
<td>Internet Use</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td>0.853</td>
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Table (6):
Simple Regression Test to Check the Direct Impact of Internet Use on Social Competence

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>R</th>
<th>R^2</th>
<th>F</th>
<th>D F</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Predictor</td>
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<tr>
<td>Social Competence</td>
<td>0.98</td>
<td>0.10</td>
<td>4.8</td>
<td>49</td>
<td>Internet Use</td>
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Table (7):
Results of the T-Test Analysis Differences between the Pair Groups

<table>
<thead>
<tr>
<th>Study Instruments</th>
<th>Gender</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
</table>
Table (8):
Results of the T-Test Analysis Differences between the Pair Groups

<table>
<thead>
<tr>
<th>Study Instruments</th>
<th>Faculty</th>
<th>M Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>T</th>
<th>Sig.</th>
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<tbody>
<tr>
<td>Social Competence</td>
<td>Scientific</td>
<td>3.92</td>
<td>0.56</td>
<td>0.0361</td>
<td>5.52</td>
<td>000</td>
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<tr>
<td></td>
<td>Humanitarian</td>
<td>3.63</td>
<td>0.63</td>
<td>0.0392</td>
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<tr>
<td>Academic Achievement</td>
<td>Scientific</td>
<td>3.58</td>
<td>0.66</td>
<td>0.0424</td>
<td>1.22</td>
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<td>0.0411</td>
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<tr>
<td>Internet Use</td>
<td>Scientific</td>
<td>3.77</td>
<td>0.59</td>
<td>0.0384</td>
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<td></td>
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<td>3.79</td>
<td>0.60</td>
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</tr>
</tbody>
</table>

9. Biographies

Sana Al-Khawaldeh is a behavioural counsellor and an assistant professor at the Department of Psychological Counselling and Education at the University of Philadelphia, and was responsible for analysing and the writing the data of the study.