

Investigating University Teachers' Attitudes towards Using Online Exams as a Tool of Assessment

GHERAIBIA Chaima

Larbi Tebessi University-Tebessa, Algeria, chaimagheraibia35@gmail.com

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Abstract:

The use of online exams has become a widespread form of assessment in education and higher educational institutions, in particular. Accordingly, this study is striving to shed light on this type of assessment. For this reason, the study further investigates university teachers' attitudes towards the use of online exams as an assessment tool. In this respect, two hypotheses have been formulated; the first suggests that teachers encounter a variety of obstacles using online exams to assess students' learning process, and the second proposes that despite the obstacles teachers would be more likely open to the use of online exams. Thus, a sample of 74 teachers responded to a five point rating scale questionnaire about the use of online exams as an assessment tool.

Keywords: *Online exams, Assessment, Attitudes. Teachers.*

الملخص:

أصبح استخدام الاختبارات عبر الخط شكلا واسع الانتشار من أشكال التقييم في مؤسسات التعليم ومؤسسات التعليم العالي على وجه الخصوص. وعليه تسعى هذه الدراسة لتسليط الضوء على هذا النوع من التقييم. لهذا السبب، تبحث الدراسة بشكل أكبر في آراء الأساتذة الجامعيين تجاه استخدام الاختبارات عبر الخط كأداة للتقييم. في هذا الصدد، تمت صياغة فرضيتين: تقترح الأولى أن الأساتذة الجامعيين يواجهون عدة مشاكل عند استخدام الاختبارات عبر الخط لتقييم أداء الطلبة. أما الثانية فتتوقع أن يكون الأساتذة الجامعيون أكثر انفتاحا تجاه استخدام الاختبارات عبر الخط كأداة للتقييم. وبالتالي، استجابت عينة من 74 أستاذا لاستبيان حول استخدام الاختبارات عبر الخط كأداة لتقييم أداء الطلبة. الكلمات المفتاحية: الاختبارات عبر الخط، التقييم، الأساتذة.

I. INTRODUCTION

The use of internet as well as computer information technology has become a wild spread phenomenon within higher educational institutions. In this, Al-Banna (2006) claims that education nowadays is limitless with time and space. Accordingly, examination, or what is commonly known as assessment, was largely influenced by this development. Duo to this development, e-exams or what is more known as online exams become to be more spread within higher educational institutions as a tool of assessment. However, university teachers have various views about this type of examination in compare to the traditional way of evaluation (paper-based or classroom-based exams) in terms of the advantages and disadvantages which they encounter when dealing with such type of assessment.

2. Aims of the study

The current study is striving to explore university teachers' attitudes towards using online exams as an assessment tool. Moreover, this study aims to investigate the mostly used type of examination in higher educational institutions nowadays. Besides, this research tries to detect the main advantages and disadvantages associated with the use of online exams.

3. Research questions and hypotheses

Building upon the problem statement, the current study seeks to address the following main research question: What are the attitudes of university teachers at Larbi Tébéssi University, in Human and Social Sciences Faculty towards using online exams as a tool of assessment? In doing so, it tries to answer the following questions:

1. What is the type of assessment mostly used for evaluation in higher educational institutions nowadays?
2. What problems, if any, are associated with the use of online exams for evaluating students' knowledge?
3. What are the main advantages of using online exams for assessment?

Accordingly, we hypothesise that university teachers face certain problems with the use of online exams as an assessment tool due to technological issues. Furthermore, this study contains a variety of background variables which could be predictors of teachers' attitudes towards using e-exams. Due to those variables, we further hypothesise that despite the obstacles teachers would be more likely open to online exams.

4. Methodology

The current study takes the form of a quantitative and qualitative descriptive survey that is set to find the answers to the research questions. A five point rating scale questionnaire was developed to collect the data. The intended target population was all the teachers (male and female) of Human and Social Sciences Faculty of Larbi Tebessi University, Tebessa, Algeria. Out of the whole population, seventy four teachers were selected through the snowball sampling technique to participate in this research.

5. Literature review

I.1. Definitions of examination

Examination is an educational process through which students' qualities and abilities could be assessed during a learning process. Mathews (1995) states "Examination tests the efficiency of the education provides ,we shall need to test what it is, students can do, rather what he knows.". In this, the main objectives of the examination process is measuring the performance level of students in order to know what did they attain in a specific learning process.

Furthermore, many scholars consider the examination process to be the proof that stands for learners' knowledge that is obtained from a particular learning process whereby Elliott (2008, p. 1) states: "At its most basic level, assessment is the process of generating evidence of student learning and then making a judgment about that evidence.".

II.1. Definitions of Attitude

The term attitude has been of a considerable interest for scientists and psychologists. Attitude is characterised by Allport (1935, p. 798, as cited in Aiken, 2002, p. 2) as the most discriminatory and fundamental concept in contemporary American social

psychology. Several definitions have been given to the construct of attitude trying to cover its main aspects.

Ajzen (1993, p. 41) refers to attitude as the person's inclination to react with a specific favourableness or unfavourableness towards a distinguishable aspect in his surroundings. This definition mainly focuses on the individual being either for or against certain object. Albarracin, Johnson and Zanna (2005, p. 4) also define attitude through focusing on the individual's position towards something without reference to time. They explain that an attitude is "a psychological tendency to view a particular object or behaviour with a degree of favour or disfavour. One can form an attitude towards something usually after evaluating it in terms of being advantageous or disadvantageous" (2005, p. 4).

According to Bohner and Dickel (2011, p. 392), scholars who have defined attitude are classified into two groups; the first group considers it a stable entity stored in memory whereas the second group refers to it as a temporal situation-dependent judgment. The examples of definitions referring to attitude as a stable entity in memory are those given by Visser and Mirabile (2004), Fazio (2007) and Petty, Brinol and DeMarree (2007). On the other hand, Schwarz's (2007), Conrey and Smith's (2007) and Gawronski and Bodenhausen's (2007) definitions stand as examples for defining attitude as a temporal judgment. Eagly and Chaiken's (2007) definition is used as an umbrella definition to attitude Eagly & Chaiken (2007): "psychological tendency, expressed by evaluating a particular entity with some degree of favor or disfavor" (umbrella definition) Visser & Mirabile (2004): "array of summary evaluations stored in memory" Fazio (2007): "object- evaluation associations in memory" Cunningham et al. (2007): "current evaluations are constructed from relatively stable representations" Petty, Brinol & DeMarree (2007): "attitude objects linked in memory to global evaluative associations" Schwarz (2007): "evaluative judgments, formed when needed ,rather than enduring personal dispositions" Conrey & Smith (2007): "time dependent states of the system rather than static 'things' that are 'stored' in memory" Gawronski & Bodenhausen (2007): "attitude construction has different meanings for associative & propositional processes" and Cunningham's et al. (2007) definition as an illustration for those who say that attitude is stable to some extent.

However, there are some scholars who take another approach to defining attitude focusing on either the generality or the specificity of the term. In this sense, McKenzie (2010, p. 19) states that the term attitude has been defined from a variety of perspectives in relation to several theories that resulted in "semantic disagreement" about "the generality and specificity" of this concept. According to Eaton, Majka and Visser (2008, p. 167), attitudes are general because they reflect the overall summary valuation of an object. In this sense, Eaton et al. (2008) define attitude focusing only on the generality of this concept. However, Fishbein and Ajzen (2010, p. 76) define attitude as an implicit inclination that holds a certain amount of favourableness or unfavourableness towards a psychological object. Accordingly, Fishbein and Ajzen (2010) link attitude to the persons' mental side solely in which they exclude any other concrete objects.

Briñol and Petty (2012, p. 285), on the other hand, define attitudes as "general evaluations individuals have regarding people (including one self), groups, places, objects, and issues." In this sense, the definition indicates that the attitude is a general judgment not situation-dependent. Besides, Briñol and Petty's definition links attitude not only to abstract objects but also to concrete ones whereby it is considered as a comprehensive definition to attitude.

II.2. Attitude, Opinion and Belief

Many researchers in the field of psychology have tried to distinguish the concept of attitude from other close concepts. Opinion and belief are examples of those concepts that need to be differentiated from attitude to be able to identify each one clearly. Furnham (2008, p. 268) explains that the main difference between belief and attitude is that beliefs are not evaluative whereas attitudes have an evaluative component. In other words, someone's beliefs towards something (concept, event, object, or person) would not be judgemental in the sense that s/he would not say that a particular person, for instance, is bad or good. However, his attitude towards something would show his favour or disfavour towards it. Anderson and De Silva (2009, p. 1) suggest that a belief is an inner feeling about the correctness of something despite the fact that it could be unasserted or unreasonable; however, attitude is

the way one can express his beliefs verbally or behaviourally showing whether he is considering it correct or not.

Baker (1949, p. 14) refers to opinion as the explicit expression of one's belief without making an obvious reaction. Baker (1949) further emphasises the fact that opinions are usually verbal expressions of one's thoughts about something as opposed to attitudes which can be hidden and expressed through either verbal or non-verbal communication. Furthermore, Baker (1949, p. 14) shows that attitudes involve effective reaction in contrast with opinions which are not accompanied by real responses. Accordingly, it is easy to know someone's opinion because it is superficial whereas it is difficult to understand his attitude because it could be shown indirectly.

Moreover, Oppenheim (1992, p. 177) states that opinion is the most superficial level of attitude. In this sense, Oppenheim (1992) indicates that one's opinion is the first stage of attitude, which makes opinions more general and more changeable than attitudes. Kleg (1993, p. 120) says that the person's attitude may be recognised through his opinion because opinions make the individual's attitudes apparent to others.

Attitude, opinion and belief are examples about the terms which common people usually use interchangeably. Therefore, one might be confused about the appropriate definition for each one. In this sense, it is important to distinguish the three of them.

II.3. Components of Attitude

In order to better understand the concept of attitude, it is necessary to discuss its components. Psychologists have tried to identify and distinguish between its main components. Wicker (2010, p. 4) suggests four components of attitude. The first component is the cognitive component of attitude which Wicker (2010, p. 4) defines as "the knowledge or intellectual beliefs an individual might have about an object, a person, a thing, or a situation". The second is affective; it is the emotional attachment with a particular objects or activity. The third component is the behavioural component, which is the way that a person reacts, verbally or behaviourally. The fourth component is cognitive dissonance; this refers to the contradiction of knowledge, information, attitudes or beliefs that a particular individual holds in a specific situation.

Weiten (2014, p. 409) asserts that social psychologists believe that attitudes consist of three main components (cognitive, affective and behavioural). Weiten (2014, p. 409) explains that the cognitive component is based on one's beliefs that they hold towards something. The affective component consists of the feelings prompted by an object of thought. The behavioural component includes a tendency to behave in a particular manner towards a specific object. Dietz-Verrier (2015, p. 21) affirms that the behavioural view of attitude considers it a single uni-dimensional unit based on people's responses towards social situations while the mentalist view distinguishes three components of attitude which are the cognitive (knowledge), the affective (feelings) and the conative (action or behaviour).

II.4. Types of Attitudes

Psychologists have different views about the types of attitudes. Their views differ in relation to the variation of contexts in which the attitude is expressed and also in relation to the object being judged in a particular situation.

Mattoon (1985, p. 55) distinguishes two main types of attitude. The first type is the extraverted attitude which is marked by a flow of psychological energy towards the external world, events, people, things and relations. This type of attitude makes the individual more open towards others' ideas and more tolerant towards their thoughts. In contrast, introverted attitude is marked by the internal flow of psychological energy. People with this type of attitude tend prefer their own ideas when being part of a conversation with others.

FitzMaurice (2011, p. 97) identifies three main types of attitudes. These types are positive attitude, neutral attitude and negative attitude. FitzMaurice (2011, p. 98) firstly defines positive attitudes as the suitable way to "create or accomplish" things. In other words, people must have positive attitudes towards the things that they aim to create or achieve. Moving to neutral attitude, FitzMaurice (2011, p. 98) defines it as the type of attitude that enables the person to be "open to learning about the subjects" he is discovering. Accordingly, neutral attitudes provide more objective insights towards objects. Moreover, FitzMaurice (2011, p. 98) refers to negative attitude as the type of attitude which keeps the person safe from making bad

options. In this sense, negative attitudes are considered the best solution to avoid the damage caused by making quick decisions.

6. Empirical Study

Introduction

The present study seeks to examine the attitudes of university teachers towards the use of online exams for assessment. Thus, data collection, analysis and discussion are fundamental procedures that should be followed in order to answer research questions. On the basis of the research questions, a quantitative descriptive survey has been adopted in this study. Okolo (1990, p. 106) states that survey research is appropriate for studying large populations and exploring wide scopes. He further explains that survey research is suitable for studies that examine sociological and psychological variables. Thus, survey research is the suitable research design in studies exploring attitudes as the current study aims to do.

I. Analysing the Results of the Survey

I.1. Demographic Information

Variables	Frequency	%
Gender		
Male	42	56.8%
Female	32	43.2%
How long have you been using computer?		
Less than a year	00	00%
1-2 years	00	00%
2-4 years	00	00%
4-6 years	04	5.4%
More than 6 years	70	94.6%
What is your level of knowledge of computer use?		
None	00	00%
Little	00	00%
Average	14	18.9%
Good	42	56.8%
Excellent	18	24.3%
How often do you use internet?		
Once a day	14	18.9%
Twice or three times a day	52	70.3%
Once a week	00	00%
Twice or three times a week	06	8.1%
Once a month	02	2.7%
Did you ever use an e-learning management system in your previous educational career?		
Yes	64	86.5%
No	10	13.5%

Table.1. Demographic Information

The frequent use of internet, and computer as well, are said to be essential factors that should influence online exams. For the present study, descriptive statistics, as shown in table 01, demonstrate the four statements used in the survey to detect the importance of the level of familiarity with internet, computer use and e-learning in general. Data reveal that the majority of respondents are familiar with using internet and computers. It further indicates that the plurality of them have an experience about e-learning in their educational career.

I.2. Teachers Attitudes:

Statements	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	F	%	F	%	F	%	F	%	F	%
Online exams are used extensively nowadays in higher education institutions	14	18.9%	24	32.4%	10	13.5%	10	13.5%	16	21.6%

Online exams are the main tool of assessment used in higher educational institutions nowadays	10	13.5%	10	13.5%	12	16.2%	22	29.7%	20	27%
Teachers face problems when using online exams	14	18.9%	24	32.4%	14	18.9%	10	13.5%	12	16.2%
Online exams have an important role in higher education	24	32.4%	24	32.4%	10	13.5%	10	13.5%	06	8.1%
Online exams could contribute to the learning process	14	18.9%	38	51.4%	08	10.8%	08	10.8%	06	8.1%
Online exams are as reliable as paper based exams	08	10.8%	34	45.9%	12	16.2%	16	21.6%	04	5.4%
Online exams are valid in terms of results	14	18.9%	36	48.6%	10	13.5%	12	16.2%	02	2.8%
I prefer online exams to traditional exams	14	18.9%	24	32.4%	10	13.5%	16	21.6%	10	13.5%
Online exams are easy to use than paper-based exams	14	18.9%	32	43.2%	18	24.3%	06	8.1%	04	5.4%
Online exams are more advantageous in compare to paper-based exams	10	13.5%	34	45.9%	08	10.8%	16	21.6%	06	8.1%
Online exams are successful as paper based exam system	04	5.4%	42	56.8%	14	18.9%	08	10.8%	06	8.1%

Table 02: Teachers Attitudes towards using Online Exams

Data in table 02 demonstrates that the use of online exams in higher educational institution is very common, however, regarding the majority of respondents, online exams are not the main tool used for assessment in higher educational institutions. In the light of what is previously said, the majority of respondents state that they encounter a variety of problems when using online exams. However they admit that online exams have an important role in higher education institutions. Besides, most of the respondents agree that online exams could contribute to the learning process. Moreover, the plurality of them agree also that online exams are as reliable as paper-based exams and valid in terms of results. When coming to the most preferred method of exam (either online or paper based), respondents attitudes is deferent where some prefer online exams claiming that this method is easy to use compared to the traditional one, and the other some prefer the traditional way that is paper-based. In the overall sense, the majority of respondents agree that online exams are more advantageous in compare to paper-based exams and are successful just as the later as.

II. Discussion of the Results

The results will be discussed in the light of the research questions and hypotheses and the literature related to teachers' attitudes towards the use of online exams as a tool of assessment. For this purpose, we established four areas to focus on; the currently used tool of assessment at the higher educational institutions, the problems that teachers' encounter with the use of online exams as a tool of assessment, the main advantageous of using online exams and, mainly, teachers' attitudes towards the use Online Exams as a method of assessment. The first research question seeks to know the currently used method of assessment at the higher educational intuitions, while the second is asked to know if there are any problems associated with the use of online exams as a tool of assessment. When analysing the results of the teachers' questionnaire, we found that the majority (51.3%) agree that online exams are used extensively nowadays in higher education institutions. However, data also reveal that most of respondents (56.7%) disagree that online exams are the main tool of assessment used in higher educational institutions nowadays referring to paper-based exams as the main tool of assessment. Moreover,

the plurality of participants (51.3%) agree that they face problems when using online exams. They further explain that those problems are mainly due to some technological issues as bad internet connection, lack of equipments and lack of knowledge concerning the use of modern technological devices. The thing that confirms the first hypothesis, stating that university teachers face certain problems with the use of online exams as an assessment tool duo to technological issues.

The third research question explores the main advantageous of using online exams for assessment. In this respect, the majority of respondents (64.8%) believe that online exams have an important role in higher education. Besides, the plurality of them (70.3%) admit that online exams could contribute to the learning process. Accordingly, 56.7% of respondents state agree that online exams are as reliable as paper based exams and 67.5% among them admit that online exams are valid in terms of results. When coming to the preferred method of assessment, most of participants (51.3%) share a positive attitude towards the use of online exams claiming that it is easier in terms of saving time, effort and budget. Therefore, 62.1% of participants agree that online exams are easy to use than paper-based exams. In this, the plurality of respondents with (59.4%) believe that online exams are more advantageous in compare to paper-based exams stating that it makes the assessment process more rapid and easier than the traditional way (paper-based) with stressing the idea that some technological issues should be regarded to appropriately cope with this tool of assessment, bearing in mind that 62.2% of respondents agree that online exams are successful as paper based exam system. In this sense, the second hypothesis, stating that despite the obstacles, teachers would be more likely open to online exams, has been confirmed.

III. Conclusion

The present study comes with the findings that online exams are widely used as a method of assessments in higher educational institutions nowadays. The results of this study also reveal that most teachers face a variety of problems that are associated with some technological issues, as poor network connection, lack of equipments and lack of knowledge concerning the use of technological devices, with the use of online exams as a tool of assessment. The thing that confirms the first hypothesis suggested when conducting this research.

Moreover, data also indicate that most of teachers have a positive attitude and they are more likely open to the use of online exams as an implemented method of assessment in higher educational institutions. This, in turn, confirms the second hypothesis of this study. However, it is obvious throughout this research that teachers are aware about the obstacles they are going to face when using online exams. For this reason, they emphasise the importance of addressing those obstacles to facilitate the use of certain tool of assessment.

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