

My Access Feedback Validity for Native Arabic Speaking Learners of English

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Abstract

This study aims to explore the nature of feedback that native Arabic speaking students received on their writings from Automated Essay Scoring (AES) program, My Access. The My Access program includes two features to provide feedback on writing: My Tutor and My Editor. The participants were 55 female students who were enrolled in the third academic year 2010/ 2011 at the Faculty of Arts, English Department, Cairo University. The essays analysis was the main data collection

method. The results reveal that My Editor feature of the My Access program detects fifteen types of writing errors, fails to capture some errors, sometimes identifies something as an error which is actually not and sometimes generates incorrect or confusing feedback. My Tutor provides redundant feedback. The AES developing company, Vantage Learning, needs to consider native Arabic speaking students errors while building its system.

Keywords:

feedback, native Arabic speaking

students, My Access, My Tutor,
My Editor, Errors

الكلمات الدالة:

التغذية المرجعية – الطلاب المتحدثين باللغة
العربية – ماي أكسس – الأخطاء

الملخص:

تهدف الدراسة إلى معرفة طبيعة التغذية المرجعية الناتجة من برنامج التقييم الآلي لموضوعات المقال ماي أكسس My Access والتي يتلقاها الطلاب المتحدثون باللغة العربية عند تسليم مقالاتهم للبرنامج. ويشتمل برنامج ماي أكسس على ملمحين لتقديم التغذية المرجعية: My Tutor و My Editor. تم بطريقة عشوائية اختيار ٥٥ طالبة مسجلين بالفرقة الثالثة بكلية الآداب جامعة القاهرة للعام الجامعي ٢٠١٠/٢٠١١. وكانت الوسيلة الأساسية لجمع البيانات هي تحليل المقالات وقد أوضحت النتائج ان My Editor اكتشف خمسة عشر نوعاً من الأخطاء الكتابية، وفشل في اكتشاف بعض الأخطاء وأحياناً أشار إلى أخطاء ما في حين عدم وجود هذه الأخطاء. بالإضافة إلى أنه في بعض الأحيان قدم تغذية مرجعية مربكة للطلاب أما بالنسبة ل My Tutor فقد قدم تغذية مرجعية بها إسهاب. يجب على شركة فانتاج Vantage Learning المنتجة لبرنامج ماي أكسس مراعاة أخطاء الطلاب المتحدثين باللغة العربية عند بناء أنظمتها.

Introduction

AES systems, a developing technology since 1960s, aim to assist teachers in writing classes and facilitate writing evaluation by scoring a submitted essay within seconds and providing feedback on various aspects of writing such as grammar, style and mechanics (Chen and Cheng, 2008; Dikli, 2010). My Access is a web-based instructional writing program, an immediate online essay scoring tool that provides diagnostic feedback for student responses to writing tasks in less than 10 seconds. It allows students to revise their essays based on feedback and motivates them to write more to increase their writing proficiency. It generates

multilingual feedback, including English, Spanish, Chinese and Hebrew, on different genres of writing such as informative, narrative, literary and persuasive essays. The company plans to make this opportunity available for other languages in the future as well.

This study aims to explore the nature of My Access feedback that university students in Egypt who are native speakers of Arabic received on their writings. It is based on the feedback that is provided by the AES program. The scoring ability of the program is outside the focus of the study. A review of the literature reveals that hundreds of studies have been conducted mainly to compare the performance of AES systems with that of human raters in assigning scores, i.e., to determine whether

the score provided by human raters of essays is replicated by computers. The majority of these studies focused on native English speaking writers (Attali & Burstein, 2006; Burstein & Chodorow, 1999; Runder, Garcia & Welch, 2006; Vantage learning, 2001, 2002). Few research studies about My Access feedback, addressed to nonnative English speakers, have been conducted. The present study investigates the feedback mechanisms of My Access program rather than its scoring ability.

Cotos (2010) introduced Intelligent Academic Discourse Evaluator (IADE), "a new web-based Automated Writing Evaluation (AWE) program that analyzes researcharticle Introductionsections and generates immediate, individualized, discipline- specific

feedback" (p. xv). One of the purposes of this study was to investigate the effectiveness and appropriateness of its automated evaluation and feedback. The results showed that Intelligent Academic Discourse Evaluator's "automated feedback characteristics and Help Options were appropriate for targeted learners" (p. xvi).

Dikli (2010) explored the nature of feedback that English as Second Language (ESL) students received on their writings either from an automated essay scoring system, My Access, or from the teacher. The participants were 12 adult students who were attending an intensive English center at a university in Florida. They had various language backgrounds including Spanish, Arabic, Turkish, Swiss and Korean. The results showed that teacher

feedback was shorter and more focused. The AES feedback was quite long and generic. The findings suggested that AES system feedback capabilities did not meet the needs of nonnative English-speaking students. The results could not be generalized because the participants' number was very small; especially the researcher divided the 12 students into two groups. Half of them were exposed to the computerized feedback; the other half received written feedback from the teacher. He concluded that there was limited research conducted in ESL contexts. More studies were needed to include ESL students in their sample.

Dikli (2007) sees that AES developing companies need to consider common errors that are produced by nonnative English

speaking students when they build their systems. A machine that is trained only on the writing of native English speakers will not work effectively with nonnative populations. Arabic speaking learners commit several types of errors in the process of acquiring English as a second language. It is essential here to distinguish between two types of errors: (a) Interlingual/Transfer errors which are attributed to the learner's native language, in our case Arabic; and (b) Intralingual/Developmental errors which are due to the language being learned and whose origin is found within the structure of English itself. On the other hand, the learner may develop hypotheses that do not correspond to either the mother tongue or the target language. This is generally known as

Interlanguage (AbiSamra, 2003, Richards, 1970).

The English definite/indefinite articles are a serious source of difficulty to Arabic speaking students. Both English and Arabic utilize the definite article but not always in the same way. For example, in English, abstract words do not accept the definite article. In Arabic, such abstract words are preceded by a definite article equivalent to *the* in English. Therefore, errors pertaining to the misuse of the article *the* occur (AbiSamra, 2003; Mahmoud, 1983). Not all Arabic definite constituents can be rendered definite in English.

A major difference between the use of adjectives in English and Arabic is that of word order. Whereas an adjective in English usually comes before the noun it

modifies, in Arabic it comes after it. As a result, errors of this type occur in the English writings of Arabic students, e.g., * "*A book interesting long*" (AbiSamra, 2003).

English Prepositions are difficult for English Language Learners (ELLs); they are highly idiomatic. Choosing the right preposition is a difficult task and is subject to mistakes based on transfer from the native language. An example of a common mistake would be * "He is studying *in* Cairo University." Arabic speaking learners often assume a one-to-one correspondence between English and Arabic prepositions particularly in phrasal verbs. For example, a learner may use * "I *admire with* nature." Verbs like "admire" and "express" are followed by prepositions in Arabic

in the manner of prepositional verbs. In English, no preposition is required in these two cases. On the other hand, Arabic speaking students also tend to omit prepositions in English when equivalents are not found in Arabic (AbiSamra, 2003), e.g., * "Turn \emptyset the light."

Sentence structure in Arabic and English is quite different. For example, Arabic uses coordinating conjunctions such as و "and" for linking sentences, where English frequently uses punctuation marks. As a result of negative transfer, Arabic speaking learners often use the conjunction "and" at the beginning of a sentence and before each item in a series in their English writings (AbiSamra, 2003).

The most frequent type of negative transfer encountered in

the writings of Arabic speakers concerning the English verb phrase is the absence of the copula. This is due to mother language interference since Arabic "nominal" sentences have zero copula in the present tense. Another type of error in verb usage stems from the fact that there is no "auxiliary verb" construction in Arabic when a yes/no question is formed, e.g., a learner tends to form the question, * " \emptyset you speak French?" and similarly drop the auxiliary verb in the passive form, e.g., "The letter \emptyset sent to Mohamed" (Noor, 1996).

English has a number of relative pronouns. Their choice may depend on the semantic features of the antecedent, such as [\pm human] and the function of this antecedent within the clause: the relative pronouns "who" and

"whom" replace nouns with the feature [+human]. The relative pronoun "which" replaces nouns with the feature [-human]. In Arabic, relative pronouns make no human/nonhuman distinctions; therefore, Arabic learners occasionally do not distinguish "which" and "who" relatives (Mahmoud, 1983).

Over-generalization is another problem. Richards (1970) defines over-generalization as a case where "the learner creates a deviant structure on the basis of his experience of other structures in the target language" (p.6). Arabic speaking learners overgeneralize the *-ed* rule for the simple past, e.g., * *drived* and *catched*. The omission of third person (-s) is another example of overgeneralization. Since in English verbs in the present tense,

with the exception of the third person singular, are all uninflected, the zero verb ending is generalized to cover all persons (Kharma and Hajjaj, 1989; Noor, 1996).

The most frequent error in the use of personal pronouns is their redundant insertion in relative clauses as resumptive pronouns in reference to the Head Noun as the case is in Arabic. Sometimes Arabic speaking learners fail to acknowledge this empty category in relative clauses. For example, they may produce a sentence such as * "This is the room where I study in *it*." This type of error can be attributed to the influence of the mother language. In a similar Arabic sentence with a relative clause, the Head Noun is resumed in the sub-clause by a resumptive pronoun as an object of the verb

(Kharma and Hajjaj, 1989; Noor, 1996; Richards, 1970).

According to Sullivan (1984, p.31), in writing, the "ultimate goal is to be neither wordless nor wordy but to achieve a balance with just the right words". The *right word* is the word that best communicates the meaning. Lexical errors result from the existence of gaps in the learner's semantic knowledge. To make up for such gaps, he may resort to inappropriately translating from L1 to L2.

Since no exact synonyms exist between lexical items in English and Arabic and many words are ambiguous, a single word can stand for different things and a single thing can be referred to by different words e.g., *a couch, a sofa* (Sullivan, 1984). Arabic speaking learners of English are

often bound to select inappropriate words to fill the gap in an utterance. These lexical errors may be caused by: (a) the lack of sufficient knowledge that enables students to differentiate between forms and their uses; and (b) literal translation of the words without taking context into consideration (AL-Shormani, 2010).

Spelling errors fall into two categories, that of non-words and that of confusing homophones or near-homophones (such as their/there, its/it's, affect/effect and too/two) (Burstein, Chodorow and Leacock, 2004).

This study attempts to answer the following question:

Can My Access program that is designed for assessing writing by native English speakers detect the errors in a situation where the

essays are written by native Arabic speaking students?

It is assumed that My Access program can detect mistakes typical of the writing of nonnative speakers.

2. Research Design

The AES program used in this study is My Access. The producing company of the program, Vantage Learning, "developed programs that can provide nonnative English-speaking students feedback in 20 different languages." (Dikli 2010, p. 101) It is accessible anytime, anywhere and allows teachers to have full control over the application of the program. For example, they can add their own comments on student essays along with the feedback provided by the system. The view reports option

allows teachers to generate 10 types of reports on the students' progress (Dikli, 2010).

The My Access program includes two feedback mechanisms: My Editor and My Tutor. My Editor generates feedback on grammar, mechanics and conventions. My Tutor provides extensive feedback on five traits: focus and meaning, content and development, organization, language use, voice and style, and mechanics and conventions. The program also includes a spell-checker feature (Dikli 2010).

Fifty five subjects were randomly selected from students enrolled in the third academic year 2010/2011 at the Faculty of Arts, English Department, Cairo University. The participants are all female and their ages range from 19 to 22 years except one

participant, who was excluded because of his age and gender. They had been learning English as a second language for 9 years. The common language spoken at home and school is their mother tongue, which is Arabic. The subjects are homogeneous in terms of their linguistic and educational background. They live in an Arabic speaking community where colloquial Arabic is their medium of interaction. English is a second language for them.

Two formative prompts, specified for higher education levels, were selected from My Access library for the purpose of the present study. The first one was entitled *Effects of Technology* and the second was entitled *Everyday Dangers* (See Appendix A). Each student was asked to choose one of the prompts to write

about, in an essay class-work session at Cairo University. To make sure that the students took the exercise seriously, they were informed in advance that the essay counted towards their year-work. The class-work session lasted two hours. Thirty minutes were spent on arranging and providing writing instructions, so the students had an hour and a half to write an essay that consisted of five paragraphs. No dictionaries or thesauruses were allowed.

The researcher decided to enter the essays on the My Access website herself for three reasons: (a) to control the computer literacy variable. Some students may have poor typing skills or may be slow typists; (b) to overcome the possible unavailability of a computer lab with a connection to the Internet during the writing

session; and (c) to be faithful to the written document. Prior to this study, the researcher had attended a training session given by the professional trainer of Vantage Learning during which she had access to instructions about how to use the My Access program, how to sign in the My Access website as well as how to type, edit, submit the essays and access the feedback information on the website. The My Access feedback was analyzed qualitatively.

3.findings

Table 1 lists the 15 types of writing errors that are identified by My Editor.

Table 1 Types of errors identified by My Editor	
<u>Error Category</u>	<u>Error Label</u>
1. Mechanics	a. spelling errors b. punctuation errors c. capitalization errors d. doubled words
2. Grammar	a. subject-verb agreement errors b. preposition errors c. pronoun errors
3. Style	a. clause errors b. formatting errors c. style settings
4. Usage	a. misused words b. missing article c. unnecessary prepositions d. word choice: nouns e. comparative/ superlative

There are a number of errors that My Editor fails to flag, e.g.:

- The Mobile is one from the important ...
- This movies affect children badly.
- Technology effected peoples' lives ...
- It makes the whole word as a small village ...

- ... I decided to made a cup of coffee ...

There are number of spelling errors that My Editor cannot capture, e.g.: my self, any where, Hence forward, curs, door man, alot and Sales men.

There are other errors that My Editor has detected but fails to suggest a useful feedback. Given that the participants are nonnative English

students, they have numerous spelling errors. (See table 2)

Table 2 My Editor incorrect feedback on spelling errors		
<u>Spelling Error</u>	<u>Suggestions provided by My Editor</u>	<u>Correction</u>
ofcourse	no suggestion	of course
Khalid	Child – chilled – whaled – chalked – chalk – challis	Khalid
facilates	Faculties – facilities	facilitate
dieses	dies – dice	disease
inspight	insight	In spite of

When a sentence has a subject-verb agreement error, sometimes the program provides two feedback points to correct the error. While one suggested making the subject or verb plural, the other one suggested making either of them singular. For example, "The mobile phones <Subject-verb agreement errors> is <Subject-verb agreement errors>also used to record lectures at the university." The first feedback point underlined the problem as the word "phones" does not agree with "is". The second feedback point, on the other hand, underlined the problem as

consider [are] instead of "is".

My Access has suggested wrong prepositions in many places. For example, "They often are busy at <preposition errors (1)>the morning" The My Access program suggests using "with" instead of "at", which is not correct.

Some of the feedback points that My Editor offers are not correct. Example: The program provides two feedback points on missing articles for the following sentence: "Egypt became now adays <Spelling errors> very crowd <Missing articles>". My Editor suggests two options:

indefinite article "a" and definite article "the". Neither of these suggestions is usable. My Editor provides inappropriate feedback point on pronoun errors for the following sentence: "We try to cope with in life and the <Pronoun errors (ESL)> emerge of various

technologies" The program suggests "they" instead of "the". The following examples display My Editor false positives. (See table 3) "False positive" means something which is identified by My Editor as an error when actually it is not.

Table 3 : My Editor false positive instances	
Sentences marked by My Editor "Many <Subject-verb agreement errors>researches ..."	My Editor feedback Advice: The word 'Many' does not agree with 'researches'. Suggestions:
".. such as science, health, cooking, etc <Capitalization errors>"	Advice: Consider [ETC] instead of 'etc' Suggestions: ETC
"... make people who are living far from <Preposition errors (1)> each other ..."	Advice: After 'living', the use of 'from' may be incorrect. If you mean 'to survive', use [on] or [off] instead. Suggestions: on - off
"... corssing<Spelling errors>the street is<Subject-verb agreement errors>one of them."	Advice: Consider [are] instead of 'is'. Suggestions: are
"... it is really waste <Subject-verb agreement errors>of time."	Advice: Consider [wastes] instead of 'waste'. Suggestions: wastes

"... when they see a car coming at them they freeze <Subject-verb agreement errors>."	Advice: Consider [freezes] instead of 'freeze'. Suggestions: freezes
"Learning can be through <Misused words>teachers ..."	Advice: You may have confused 'through' (the direction of a movement) with [thorough] (complete). Consider replacing if necessary. Suggestions: thorough
Table 3, Cont'd	
".. some people do not use telephones <Misused words>regulary ..."	Advice: Consider using [telephone's], [telephones'], or [telephone] instead of 'telephones'. Suggestions: telephone's - telephones' - telephone
"... talk with people we do not know through face book or hotmail <Spelling errors>..."	Advice: The word 'hotmail' is not in the dictionary. Suggestions: hot mail

My Tutor provides analytic feedback on five traits of writing and holistic feedback on the overall quality of an essay. The feedback is generic and redundant. The same feedback points

are generated for the same score. For example, any student who receives a score of 2 will get the same holistic feedback. (See table 4) The program just changes the name of the student.

Table 4 :Holistic feedback provided by My Tutor

Overall:

Amira, on a scale of one to four, your response to this assignment was given an overall score of 2.0 out of 4. Your response was evaluated on the basis of how well it communicates its message considering the five important writing traits: Focus & Meaning, Content & Development, Organization, Language Use, Voice & Style, and Mechanics & Conventions.

A response that receives a score of two partially communicates its message. Typically, a response at this level has some evidence of purpose, but that may not be totally clear and/ or may lack a continued focus on the main idea. While there is evidence of development, there is typically a lack of support and supporting detail. The sentence structure is generally poorly constructed with noticeable and distracting errors. The response typically shows poor word choice and usage with several distracting errors in mechanical conventions such as spelling and punctuation.

The developing company, Vantage Learning, needs to take the errors of nonnative English speakers into consideration while building its algorithms. The current algorithm does not identify some of the errors of native Arabic speaking students. The error detection capabilities should be improved for nonnative English

speaking students. Those students need special guidance in writing classes

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Appendix A: The Prompts

