

Pigai Smart Essay Scoring System and Its Implications for Teaching English Writing

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Abstract: This paper analyzes the advantages and disadvantages of Pigai Smart Essay Scoring System which is the most popular smart English essay scoring system in China. It also studies its validity and provides some implications for the teaching of English writing.

Keywords Pigai Smart Essay Scoring System; Teaching of English writing; Validity

INTRODUCTION

With the rapid development of information technology and the increasing popularity of the Internet, teaching and learning are no longer encumbered by space and time to a certain extent. So it has become an issue of great concern of educational researchers as to how to make good use of the Internet to assist learning. In some western countries, Smart Essay Scoring (SES) systems such as My Access, Criterion, Writing Roadmap, Write to Learn and so on have been launched for years to assist writing in language learning [Tang et al., 2011]. While in China, the biggest and probably the most influential SES system, Pigai Smart Essay Scoring System (Pigai System for short), has begun to attract the attention of more and more researchers and scholars. Some scholars studied Pigai System's application [Shi, 2012; Tang et al., 2011; Jiang et al., 2013]. Other scholars did researches on its teaching mode and validity [Yang et al., 2015; Yin, 2015]. My study intends to analyze the advantages and disadvantages of the Pigai System, and to study its validity and implications for English teaching. This is done in an attempt to offer some meaningful suggestions for the improvement of the system and for the promotion of teaching English writing with Pigai System more effectively.

THE ADVANTAGES AND DISADVANTAGES OF PIGAI SYSTEM

Pigai System is probably the most widely used online English writing system in China now, claiming that more than 1000 colleges and universities in mainland China, Hongkong, Macao and Taiwan are using it now. Pigai System, whose research centre locates in the Capital Normal University, is a writing network cooperated by some well-known institutions like the National Key Laboratory of Smart Technology and System in Qinghua University, the

Institution of Computer Linguistics in Peking University and so on. Pigai System, launched in June 2011, is the only corpus-based automated English essay scoring system in China to date [Chen, 2013]. As an online smart essay scoring system based on cloud calculation, Pigai System can generate in a flash a score and some comments and analyses on the language and content of an essay.

Advantages

As an online automated essay scoring system, Pigai System can ease the burden of teachers of English in reading and marking a large number of students' compositions. After two years of application, we have found that it has the following advantages:

A. Offering immediate feedback

When a teacher logs on to the Pigai System and gives a writing assignment, the system will generate a number immediately. Then students log on to the Pigai website (i.e. <http://www.pigai.org>) and insert the number given by their teacher, and they will get the writing assignment. They can do the assignment and submit online at any time just before the deadline. The teacher may set to allow students to revise and submit as many time as they would. Each time a student submits his composition, he will get a score and some comments on his writing. Pigai System may point out the spelling mistakes and possibly some collocation of words or grammatical problems in a student's composition, giving relevant collocations or even sample sentences for reference in the meanwhile. Students can revise accordingly so as to improve their own compositions and get better scores. They can keep revising until they are satisfied, the practice of which is believed to be beneficial to the raising of students' self-learning ability and may eventually lead to the improvement of their writing ability.

B. Checking on plagiarism

Pigai System is able to check the rate of repetition of an essay with others' works, that is, to see how much of a student's composition is the same as others, which makes it easy for the teacher to know whether a student copies others' work or not. If it is found that someone does plagiarize or copy others' work to a certain degree, the teacher can take measures to punish the student by asking him/her to rewrite. Thus plagiarism may be prevented to a certain extent.

C. Easy for teachers to control and administrate

Pigai System has a list of functions such as Composition Browsing, Data Description, Students' Performance, Error Distribution and so on. For example, it can mark down the times that a student submits his composition and note how he progresses. Just click the column "Track of Progress" and it is all there.

Pigai System also has the function of "Teacher's Marking". So, if the teacher wants to read in person a certain student's composition, he can do it online, scoring the composition and giving personalized comments on it. The teacher can also download his students' work for later analyses in class. Furthermore, Pigai System allows teachers to select and post excellent essays as models for all students to read online at their convenience.

What's more, since there is a variety of topics for different writing purposes stored in Pigai System, teachers may just find appropriate ones in Shared Topics column and cite what they need when they set assignments, which is really time and energy saving.

D. Giving reliable grading

In the course of using Pigai System in our teaching of writing, we have checked for many times about its validity, comparing the scores it gives with that of teachers'. We are happy to find that there is always a high correlation between them. Just take an example. Last year our English Department held a writing contest in which about 300 students participated. The students were required to use Pigai System to write a composition on the topic "Giving is Receiving". They were to do it and submit online in a given time. Later, we printed out the top fifty students' compositions and asked three teachers to mark them. The result was inspiring. It showed that the scores given by Pigai System were closely related to that marked by the teachers.

Other experiments done on the validity of Pigai System by scholars in different universities in China also give positive results. For example, Jiang et al. [2013] compared the score of a composition given by Pigai System with that of Writing Roadmap's and found that the scores matched greatly. Yin et al. [2015] did a more complicated experiment, in which they analyzed the scores of four different tasks of writing involving 70 college students' scores given by the Pigai System and by teachers respectively. The finding was that the scores Pigai System gave were closely related to that of the teachers', the correlation

being about 0.52, which indicated that Pigai System is valid and reliable in scoring students' essays.

Disadvantages

Regarding the advantages discussed above, it may be safe to say that Pigai System may do good to the teaching of English writing. However, we should also notice that Pigai System still has some obvious disadvantages to be overcome.

A. Imperfection of grammatical error finding

For one thing, Pigai System is not able to tell exactly what is wrong with the sentences students write. For another, it can neither check the structure nor tackle with the incoherence of a passage. Anyhow, Pigai hasn't succeeded in offering checking on the straying of the subject which is vital to the writing. Some examples from our students' writing may well prove that. Just look at a paragraph taken from the composition of one of my students' :

We all know that our grandparents take good care of ourselves is not a simple thing, and they are very hard too. They don't charge a fee for babysitting, but we can do other things to repay them. Our parents can visit them more and buy more thing which they need to them. As for us, we need to respect them and don't forget their love, after we grow up, we should visit and talk to them more. And even they are ill, we have to take good care of them too. So what our grandparents have done for us all because of love, they should not charge a fee for babysitting.

Apparently, there are so many errors in that poor student's writing that you can hardly find any one good sentence in it. But unfortunately, Pigai System failed to diagnose any of the grammatical mistakes. Instead, it just offered the comparison of the noun "fee" in the second sentence with its synonyms such as "charge, price, fare, cost, expense".

B. Lack of credibility in structure analyses

It is also quite doubtful whether Pigai automated scoring system can check the structure of a piece of writing. To prove this, we have tested for many times this way: we put into Pigai System a composition made up of three paragraphs indicating three parts (i.e. Introduction, Body, Conclusion) to see if it would make much difference when we mixed up the paragraphs. Much to our disappointment, it would always come out with a score of more or less the same however we organize the paragraph. So to speak, Pigai System could hardly tell the difference about the structures of an essay.

C. No digression checking

What's worse, Pigai System is not able to diagnose whether a composition has strayed away from the theme or not. We have found for several times that even though some students do not write anything to the topic, they are scored fairly high. Once I excerpted from Reader's Digest online a short passage about how tanning becomes a fashion. I put the passage into Pigai System for a test. Deliberately, I gave it a wrong title of "Grandparents should not

charge a fee for babysitting”, and I got a score of 77. Then I input the right title “The Tan Becomes Fashion” for it, and it came out with the same score of 77 surprisingly! Clearly, Pigai System is not definitely reliable in checking whether a student has written something related to the topic required or not.

IMPLICATIONS OF ONLINE PIGAI SYSTEM FOR ENGLISH TEACHING

Firstly, it seems quite necessary for teachers to learn to apply the system and do researches on it so that Pigai automated scoring system may truly benefit our teaching. We can be sure that the advancement of technology and the application of Pigai System will inevitably bring about reformation of English teaching. But how great an effect will Pigai system have on our teaching may have to do with the teacher’s attitude towards Pigai System and the methodology applied. Anyway, it is quite a challenge for teachers to learn to guide their students reasonably and effectively in using the system. If teachers can combine this software technology into their teaching skillfully, a satisfactory result of teaching English writing is likely to achieve.

Secondly, teachers still have an important role to play in the application of Pigai System in teaching English writing. They are irreplaceable in organizing class activities and guiding students in learning. After all, teachers are the administrator, the reviewer and the instructor in the course of teaching. They are to administrate the class, designing suitable tasks and implementing them. It is the teachers’ responsibility to review students’ essays, pose good samples and analyze errors in students’ work, making sure that every student is doing well and making progress.

Thirdly, Pigai System has to be perfected before it can really become a reliable tool for teaching English writing. But we shouldn’t turn down this newly-born computer technology simply because it is not sound. Instead, we should make avail of its advantages so that it can benefit our teaching greatly. Obviously, more scientific studies need to be done on this smart essay scoring system about how we can make the best use of it in teaching.

CONCLUSION

Pigai Smart Essay Scoring System can be a blessing to the teaching of English writing. It may help reduce the burden of teachers in grading students’ compositions, especially when there is a number of compositions for one teacher to grade. It can also help with students’ self-learning. As a new software technology, Pigai System has quite a few advantages which may outweigh its disadvantages. Nevertheless, due to the fact that there is still much room for its improvement, teachers should use it wisely. It is plain that more empirical researches need to be done on how to combine Pigai System with the teaching of English writing effectively so that it can truly benefit our teaching.

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