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Evaluating Wiki as a tool to promote quality academic writing skills

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Abstract:

In this study we investigated undergraduate teacher trainees' use of wikis, focusing on the use of shared spaces to communicate ideas and generate course specific content. We explored how students, through such activities, were to able to improve their academic writing skills. We discuss writing as a social practice and discuss how wikis might promote better academic writing. With data derived from student discussion boards and a post-module e-mail questionnaire (N=35) our findings indicate that most students raised their skill level in writing as a result of using the wiki space. Collaborative writing was limited due to students' reluctance to change each others' work, but students appreciated the shared environment to discuss the course. Students reported their academic writing skills improved through use of the wiki.

1 The rise of the Social Web

As the World Wide Web continues to evolve and pervade many aspects of modern life, users will discover ever more sophisticated and ingenious uses, particularly for social networking. The Web's second major incarnation - Web 2.0 - has been called the 'social web', for good reason. Compared to its precursor, Web 1.0, content can be generated and published more easily, and centralized control of content is subjected to democratic processes.¹ The social web is very much at the vanguard of a significant shift in the ways the World Wide Web is being used across society, particularly within the entertainment, commerce and education sectors. Clearly, the social web has burgeoned in recent years for two important reasons. They are free and they are interactive.

Social web applications are generally offered free to all, and provide a means for dialogue with a potential audience of millions, through quick and easy publication and rapid feedback. Readers become writers, and users can become their own publishers, producers and directors in what has been dubbed the 'read-write' web.² A myriad of new services and web spaces are appearing, including social spaces such as MySpace and Bebo, photo sharing sites such as Flickr and Picasa, and video sharing sites such as YouTube, all of which enable users to share their ideas with a potential worldwide audience.¹ Blogging is increasingly popular as a means of publishing a regular diary online. Tracking services such as Technorati help Bloggers to promote their sites, whilst services such as Digg and del.icio.us offer social tagging and collaborative filtering options that allow users to alert their friends about new or favourite web sites and to vote for those they consider to be useful within their own community of interest.

2 Collaborative online writing

Users world wide are exploiting the benefits of a growing range of social software at a globally networked level to create their own personal contact spaces, share ideas, photos, videos and documents with their friends and family, and at a more formal level, as a serious educational tool to facilitate the discussion of key concepts. This paper was created by the two authors using Google Docs - a free collaborative writing tool allowing synchronous writing to be managed over the web. Wikis are one of the most popular tools available for collaborative writing on the Web and teachers are discovering that they provide a dynamic new set of tools to facilitate collaborative learning. 'Wiki wiki' in the Hawaiian language can be translated as 'to hurry' or 'rapid', and wikis are certainly quick and easy to learn to use.² It is perhaps one of the most flexible applications found on the social web, and can be used in a number of valid educational contexts. Wikis house a shared web space which all users have equal access to, and include toolbars to import images, create hyperlinks and modify text.³

Each page is typically accompanied by a discussion group, and all pages within the set are subject to a 'track back' history utility which can be used to revert content to an earlier version if vandalism occurs.⁴ This paper seeks to outline some of these utilities, describes the use of wikis in teacher education as a collaborative tool, and provides the reader with an initial evaluation of their use from a student perspective. We begin with a discussion on writing as a social practice.

In any collaborative writing space the initial contributors work at a disadvantage, as they have no other contributions to compare and contrast their own writing with. To ameliorate this problem the course tutors created a set of headings (writing framework) and accompanying questions within the root pages of the wiki spaces to prompt and scaffold initial student postings. Prior to our discussion of the findings of this study, we examine the nature of writing within a social context.

3 Writing as a Social Practice

The examination of Social Practice theory and the allied concept of 'New Literacies' has recently dominated the study of writing within social settings. The introduction of new technologies encourages changes in the nature and use of literacies within a social practice concept. Collaborative writing has a role to play in defining social practice and literacies. Street⁵ suggests that we identify with domains in which different types of communication take place. Subsequently, writing for an academic audience might be grounded within an shared electronic environment such as FaceBook, if the reader also identifies with and subscribes to, the same medium. The language used within that agreed domain becomes socially acceptable within its own boundaries, but would perhaps not be as appropriate outside of this context. Shortis⁶ believes that those who write within new technology mediated text environments formulate their contributions according to the expectations of others within the same social context. The grammar that is acceptable in say, an e-mail communication, may be socially unacceptable in a formal letter.

Thurlow *et al*⁷ discuss speech communities as shared communities where 'people organise themselves into communities around the way they speak'. The same could be said about writing and 'text communities'. We argue here that as with language, text does not need to be perfect in order for understanding to be gained. Complex issues are emerging from the multiple modes of text based communication available within the age of new media.⁸

Carrington⁹ argues that contemporary literacy is reflected in a number of ways by individuals who will become adept at shifting between text genres. Mobile phone texting, e-mail and writing to social networking spaces are different text genres that each own subtly emerging protocols and rules, some of which can be at odds with conventional grammatical structure and language use. Yet such text genres can still contribute toward the development of knowledge and can act as a cohesive force within online learning communities in the same manner that culture acts as a social glue.

For students, there is also the strong probability that larger audiences exist beyond that of the conventional essay audience of 'one'. When online pages are 'tagged' - that is, appended with key words - they become instantly searchable using search engines, and web visitors will inevitably be attracted. As social beings we are naturally aware of our audience and take care to present our 'best side'. Goffman¹⁰ claimed that individuals tend to carefully manage their impression by presenting a 'front stage' version of themselves in public, which can greatly contrast with the self that is seen 'back stage'. It is highly likely that evidence of impression management might be present within the written postings of students on wikis, due to the potential for large 'hidden audiences' of casual web visitors. Such a phenomenon has already been observed in studies of students using blogs¹¹ and other social networking spaces.³ Some students may therefore be reluctant to participate if they perceive the need to adapt their writing styles, or open themselves up to scrutiny from a hidden audience.

4 Academic writing and Literacy skills for trainee teachers

All undergraduates are required to write at a level which meets academic standards, where essays are coherent with acceptable grammatical structure and accurate spelling. Writing can present a challenge for some students as it is cognitively demanding, and invokes a deep and powerful kind of learning.¹²

Students are also expected to demonstrate critical awareness of their subject and relevant focus in their writing. Many students enter higher education ill-equipped for such rigours, and some find the task of writing academically frustrating or confusing.¹³ Furthermore, studies show that the majority of students who drop out from university study do so within their first year.^{14,15} One study reported that 37% of student attrition in the first year was attributable to 'academic' problems.¹⁶ It was deemed important for this study therefore, that an investigation should be made into the possible disparities between formal and informal writing styles in web based environments.

5 Method

Four cohorts of education students comprising first (n=10), second year (n=10) and third year (n=9) undergraduates, and a small post graduate cohort (n=6), participated in this study (N=35). Ages ranged from 18 years to 35, with the majority in their early twenties. The students used wikis as an integral part of their studies for one complete term of 10 sessions within their initial teacher training programme and were invited to report on their experiences periodically through their respective online discussion groups. Data were gathered through the wiki discussion boards after prompting by the researchers, and subsequently through a post-module e-mail questionnaire. All names and identities have been withheld to maintain confidentiality. To ensure brevity, in this study we employ only the data from first and second year students. Data from the third year undergraduate and post graduate cohorts will feature in future publications.

6 Results and discussion: the benefits and limitations

6.1 Benefits

One area of focus for the study was to ascertain how participants used the wiki to develop their writing skills in general. Students were asked: What particular kinds of writing skill do you think you have developed as a result of using this kind of web page? One student raised his awareness of the importance of developing his critical and analytical skills:

In terms of hand-writing and basic writing skills, the wiki has played no part in developing or extending my abilities, however for academic writing e.g. writing essays, it has showed me the importance of using a wide variety of sources and not basing fact or theory on one opinion that a website offers. I think I am now developing a healthy critical and analytical writing style thanks to the wiki. Looking at other people's opinions and findings has helped me to question what's in front of me and I have found myself researching certain areas further to see if all opinions are the same. So all of that put into one sentence is basically that the wiki has helped with academic writing skills. (2nd Year Male)

Others reported that they were keenly aware of the 'hidden audience' of visitors to the wiki, with their own student peer group exerting the most considerable influence. They reported that they had adjusted their writing within the wiki to manage their impression favourably. However, as is evidenced within the following quotes from the less public discussion groups, their writing within this domain was more informal, complete with spelling and punctuation errors. Some were concerned that they were seen to write content within the public wiki space that would represent their thinking in the best possible light:

I concentrate more now on my spelling than ever before because anyone can see what you are writing so you have to take more care. (1st Year Female)

... if anything it probably makes me write better. on the wiki you know that everyone can read your work so you make yourself as intelligent as possible. (2nd Year Female)

... I know other people that I don't even know will be reading it. I will only write something that I'm sure about, and not things that I think might be wrong or questioned by other people. (1st Year Female)

Several students realised at an early stage that writing to the wiki was a challenging exercise, for a number of reasons. Sentence structure became an issue...

Writing on the wiki is a challenging activity which involves much thought about the length and structure of sentences as it is able to be read by anyone. The exclusion of a spell-check also provides more challenges of careful thinking. (1st Year Male)

...as did the utility of spellchecking:

I have noticed how much I do rely on Microsoft word, when I word process. Wiki has no spelling or grammar functions, so I have to pay more attention to what I write. However, the problem is when you cross over from using Microsoft word to wiki. (1st Year Male)

*It's hard to get used to not depending on the spell checker to correct spelling mistakes.
(1st Year Female)*

One of the most useful utilities of the wiki was its capability to constrain students into dealing with manageable 'chunks' of study. Although one student argued that using the wiki did not appear to improve her writing, she reported that it enabled her to reduce her confusion about the topic as a whole:

Using the wiki has made writing much more focused on a part of a topic rather than gettin confused trying to tackle the topic as a whole- i found it particularly useful when doin all the learning theories. With regard to actual 'writing skills' i wouldn't say it's improved anything to be honest, i find myself writing in the same way I'd write a text or speak to friends on msn. I dunno if this makes it look unprofessional or appear easier to read cos its more informal? (2nd Year Female)

Students also experienced a more acute awareness of the need to provide accurate referencing for the thoughts and ideas they posted to the wiki. Others discovered that a more formal style would be appropriate for their postings to the space, and adapted their style accordingly:

my referencing has improved through using the wiki, as it had made me realise how important it is to state where you got your information from initially. (2nd Year Female)

I have developed more consideration for others when writing, as you know that everyone will be reading what you write. you have to consider whether or not it will be relevant to them before you write it up. (2nd Year Female)

I believe the wiki has helped me to improve my formal writing skills and academic writing. I now realise that there is a great deal of research available to me to support my academic writing. I feel that my referencing skills have also been improved. (2nd Year Female)

6.2 **Limitations**

As with all digital communication tools, wikis have limitations, but these appear to be mainly perceptual. Some for example, avoided potential conflict with peers or moderated their opinions to minimize the potential to offend. Several students were of the opinion that the wiki restricted their writing style or constrained them from expressing themselves in a natural way:

Using the wiki has restricted me putting a lot of personal opinion into the findings, so to avoid conflict with others over a differing opinion. (2nd Year Male)

I personally feel that, for me, the wiki stops you from writing your opinions in full. I feel very wary knowing that anyone else can read them, so tend to keep my opinions to myself. I know that this will restrict my learning, but i don't feel confident enough to write my full opinions on the internet. (2nd Year Female)

Some however, held an alternative view, and decided that they would take the irk of offending others as a trade off to expressing their full opinions:

I feel fine putting down opinions! If you feel you may upset someone - try and put it tactfully! (2nd Year Male and a now a regular Blogger)

When writing in the wiki, i am aware that anyone can look at it and i suppose this limits to an extent what il write but not greatly. Im still happy to write my own opinions and stuff its more the language im using that i find myself thinking about as this will differ for people i know. (2nd Year Female)

A potentially detrimental issue was identified as a general artifact of all digital writing technology:

The wiki and using ICT as a whole has limited my writing skills and spelling, as i now depend more on the spell and grammar checker and my handwriting has got worse as i am using the computer more. (1st Year Female)

However, it was interesting to note that the wiki used in this study had no spell checker, so students could not rely on this facility to auto-correct typographical and spelling errors. One student also reported that she had revisited the wiki after the module had ended and this had been instrumental in helping her to write her assignment. She used it to

...go back and look up what others had written and use that as a starting point for my essay. (2nd Year Female)

By contrast, another student considered that using the wiki as an aid to essay writing was unacceptable:

I ... think if I quoted from the WIKI it would not be deemed as a valid source. (2nd Year Male)

Such perceived illegitimacy may of course be a legacy of students' use of other public collaborative spaces such as Wikipedia and Wiktionary, which have received bad publicity relating to their accuracy and validity as research and information repositories. One student made her views clear about all wiki based sources:

At the end of the day this is only someone's opinion and should be taken with a grain of salt unless it is backed up. (2nd Year Female)

7 Conclusion

This study focused on the use of wikis as a tool that could promote higher quality academic writing skills for undergraduate and postgraduate students. As with all new technologies, a number of benefits and limitations were identified, many of which were perceptual in nature. Students welcomed the chance to air their views and ideas about their course work on a public forum, with very few expressing a reluctance to contribute. Some even developed their own blogs as a direct result of their participation in using the wiki during class time. A great deal of 'impression management' was observed, which suggests that students were aware of an audience greater than that constituted by their own peers. Students were surprised by the number of outside visitors to the wiki, which they could view via the onboard hit counter. They were, however, less fastidious over their impression management within the protected discussion pages, where the correction of spelling and grammatical errors did not assume as much importance.

Significantly, use of the wiki was observed to develop a healthy critical attitude for many of the participants. Students also reported that they took greater care in the referencing of their work, and found themselves taking more care to check the veracity of their sources. It remains to be seen whether such meticulous scrutiny of sources will be transferred across to the writing of academic essays with all future student cohorts. We intend to undertake further studies that will attempt to correlate the quality of students' academic writing with the quality of contributions they have made on the wiki spaces.

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