

# Culture of Integration: Literacy Tools for the Masses

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## Abstract

The purpose of this research is to assess the impact of literacy tools, which for this research are defined as wikis, blogs and discussion forums, on teaching and learning to determine the factors that might be inhibiting a realisation of their potential, and to begin to build a case for a change in research and implementation directions within teaching and learning environments from a focus of one literacy tool to a focus of using all three literacy tools. The survey data suggests that discussion forums are used a lot more in teaching and learning than existing literature suggest; additionally tutors and students use more than one tool for their teaching and learning, and overall students and tutors have a very positive view of their uses in teaching and learning. The data also shows evidence that students and tutors are willing to use the latest technologies such as mobile phones to access literacy tools, but it has to be questioned whether or not using mobile phones and other technologies such as iPads actually contribute to a pedagogic understanding of literacy tools. The results show that there is a lack of tutorial support for both teachers and students: over half of the student population and over three quarters of the tutor population state that they have not received any training on the technical and pedagogical uses and understanding of literacy tools because there is no training available, or that there is training available but they have not been made aware of such training. A culture of integration is possible, where students, tutors, course managers, researchers, institutional managers, and course tutors work together to integrate literacy tools and other technologies such as mobile phones and iPads in a way that complement, not compete with, existing teaching and learning styles within a given teaching and learning environment. More work needs to be completed, however, before a culture of integration is realised: assessing the suitability and effectiveness of existing student and tutor tutorials, integrating tutorial support for tutors within formal teaching and professional development programs, and to monitor the effectiveness of all tutorials to ensure that they are technically and pedagogically appropriate.

## Keywords

Wikis, blogs, discussion forums, online learning

## 1 Introduction

A culture encompasses the beliefs, intentions, opinions, experiences and actions of a diverse set of individuals within a particular boundary, whether it be a religious boundary, a country boundary, or even a business or organisational boundary. In the case of teaching and learning, culture encompasses the tutors' teaching styles and attitudes towards teaching; the students' learning styles and attitudes towards learning, and the methods, tools and technologies used to deliver and enhance teaching and learning. Integration within teaching and learning encourages the inclusion of such styles, attitudes, tools and technologies in such a way that teaching

and learning are enhanced. A culture of integration, therefore, is a view of encouraging the students and tutors to integrate technologies in a way that complement, not compete with, the teaching and learning styles and the nature of a given teaching and learning activity, in a manner that enhances the teaching and learning experience.

Literacy tools, which for this research are wikis, blogs and discussion forums, are a set of tools that aid the delivery of teaching and the development of knowledge and learning through the process of literacy itself: reading and writing, along with high order learning objectives: analysis, and critical reflection. Literacy tools provide the means by which learning can take place through collaboration (*Parker and Chao 2007*), or through reflection and analysis of content (*Parsons 2004; Yang 2009*). Existing literature, however, has placed focus only on the use of either a blog or a wiki as the main teaching and learning tool, with little or no focus on the use of discussion forums. Even less than this, there has been no attempt, so far as the literature search for this research has shown, to integrate the uses of these tools in order to enhance teaching and learning

This paper begins with reviewing the existing literature to establish a context of what has and has not been achieved followed by a brief explanation of the methodology that has been used. This is followed by a presentation of the most important or substantial findings, followed by a discussion of the findings focussing on comparing all three literacy tools in terms of what is being used and the frequency of their use in teaching and learning, how effective they are viewed by both the students and the teachers for teaching and learning, to determine if whether or not it would be practical to use all three literacy tools simultaneously, and suggest what further work needs to be completed to allow simultaneous use of all three tools in teaching and learning.

## 2 Literature review

Literature has focussed majorly on the uses and educational benefits of wikis and blogs with very little regard for discussion forums, which have been viewed as a tool to complement the research process rather than teaching and learning (*Wheeler et al 2008*). To begin development of a culture of integration, there has to be an understanding of the potential uses and educational benefits that all three literacy tools provide to both teaching and learning. The effect that blogs are having on teaching and learning, and the view of their effectiveness as a teaching and learning tool, has been the subject of numerous research (*Yang 2009; Churchill 2009; Chan and Rideway 2006; Song and Chan 2008; Betts and Goldoff 2004; Parsons 2004; McMillion 2005; Craig et al 2008*). The research suggests that the majority of participants experience no technical complications when using a blog and understanding how it works; however, it is not clear from the research that the students understand the pedagogical processes. Whilst there is some evidence suggesting that students are engaging with the blog in a collaborative manner, there is other evidence to suggest that blogs are best for personalised learning spaces. This does bring up questions regarding students' knowledge and understanding of how blogs work in a collaborative, constructivist learning environment.

Wikis have also been subject to various research regarding their effectiveness as teaching and learning tools (*Deters et al 2010, Parker and Chao, 2007; Tetard et al 2009; Hoorn and Hoorn 2007; Elgort et al 2008; Ritman et al 2005; Wheeler et al 2008 Bower et al 2006*). Just like blogs, there appears to be a lot of evidence to suggest that students have no problem with using the wiki technology. However, there is also a lot of evidence to suggest that students and even tutors are lacking the understanding of the pedagogic nature and benefits of a wiki. Students do not appear to understand how they should work with wikis in a collaborative manner, with little research into how these issues are to be resolved so that students and teachers can learn and teach effectively, respectively, in an online learning environment.

Reasoning behind the lack of pedagogic understanding of literacy tools is pointed towards a lack of student tutorials and the need for such tutorials (*Craig et al 2008; Bower et al 2006; Tetard 2009; Wheeler et al 2008; Ebner and Maurer 2007*). Some researchers have suggested ways in which tutorials can be used to introduce students to literacy tools for learning (*Lamb 2004; Leung and Kai Wah Chu 2009; Elgort et al 2008; Tetard et al 2009*). There has, however, been far less questioning and research into the knowledge and understanding of the tutor with regards to the use of literacy tools in teaching. Deters et al (2010) suggest that tutors are more likely to portray a positive influence over the students using a wiki, or any other literacy tool, if the tutors themselves understand the technical and pedagogical aspects of the technology being used.

### **3 Methodology**

An electronic survey was made available to members of the general public for a period of over a month, from early July 2010 to the middle of August 2010. The members of the general public were notified of the survey through video sharing websites, social networking site Facebook, the internal Email system at Plymouth University, and tutor based discussion forums. A total of 92 participants completed the survey, all being current or previous students or teachers having some sort of experience of using wikis, blogs and discussion forums in formal teaching and learning settings or in general, informal settings.

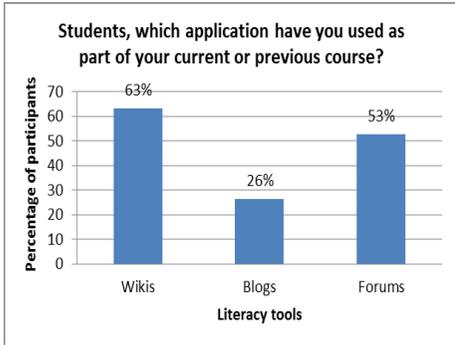
The survey itself was used to collect quantitative data via closed questions, which were a mixture of multiple choice, single answer questions and multiple choice, multiple answer questions. The aim of the survey was to capture the thoughts, opinions, ideas and experiences of participants regarding their use of wikis, blogs and discussion forums as tools for teaching and learning. Also, to determine the level of knowledge the participants had regarding the use and understanding of literacy tools, and to give them the opportunity to evaluate any tutorials or training they might have received regarding the use and understanding of literacy tools.

### **4 Results**

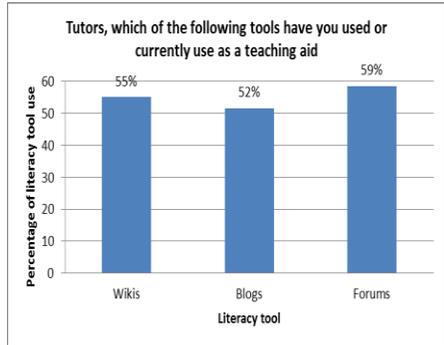
A total of 92 participants took part in the survey, 37 (40%) of which were students and 55 (60%) of which were tutors.

### 4.1 Uses of literacy tools in teaching and learning

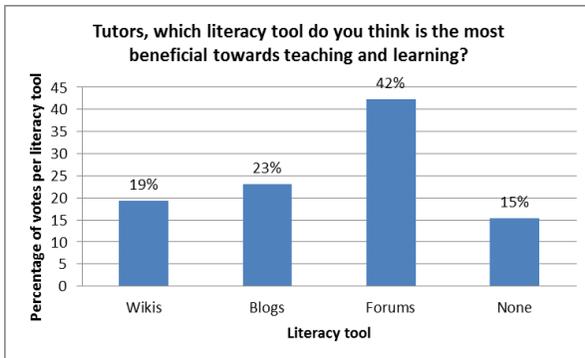
51% of the total student and tutor population use literacy tools as part of their learning and teaching respectively. Both tutors and student population samples were asked to select the tools that they use as part of their teaching and learning:



**Figure 1: Percentage of literacy tool use by students**



**Figure 2: Percentage of literacy tool use by tutors**



**Figure 3: Most popular tool for teaching and learning**

The percentages are relative to the subject population; therefore the percentages reflect the student and tutor population only and not the whole population. 48% of the tutor population stated that they use more than one literacy tool for teaching; 37% of the student population used more than one literacy tool for learning. Discussion forums have been voted the most beneficial literacy tool towards aiding the teaching and learning process by the teacher participants.

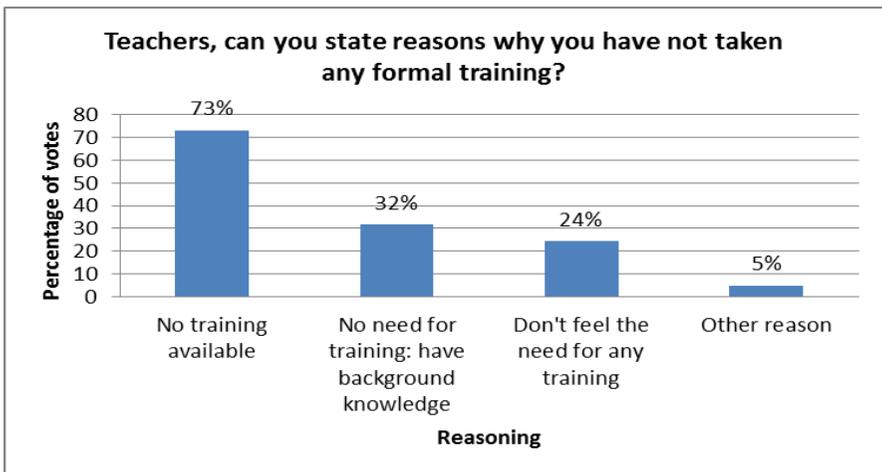
83% of the students who have used a wiki report a positive view of their use in their learning; 80% of students who used blogs also report a positive view and all of the students who use discussion forums also report a positive view of the use of discussion forums in learning.

Students who used literacy tools also note lack of difficulties in using literacy tools: 92% who used a wiki experienced no problems; 60% of students who used a blog experienced no difficulties, and all of the students who used discussion forums had no difficulties.

All tutors and students were asked if they would consider accessing literacy tools through mobile devices: 61% of students state that they would access the tools through a mobile device; 55% of the tutors have stated that they would also access literacy tools though mobile devices.

#### 4.2 Evaluation of student and tutor tutorials

68% of the student population said that they had not received any training or tutorials regarding how to use literacy tools for their learning. From the 32% who had received training, 83% stated that they found the tutorials to be of good use. The students who stated that they did not have such tutorials, 60% believe that they would not have benefitted from such tutorials. 77% of the tutor population had not taken any form of training, with 73% of them stating that there were no training available, or that training could have been available but they had not been made aware of such training, which would indicate poor personal development skills or inadequate communication skills within the organisation.



**Figure 4: Reasons why tutors have not received any training**

The tutorials for tutors do not appear to be a waste of time, because the tutor population who had received training all stated that the tutorials were of benefit to their technical and pedagogic understanding of literacy tools.

## 5 Data Discussion

Despite a lack of discussion in existing literature regarding the use of discussion forums in teaching and learning, the survey data shows that discussion forums are used far more than what the literature indicates and are viewed by students and tutors as positive learning and teaching tools. This is an unexpected, yet important, finding because it was expected that either wikis or blogs would be the most used due to the amount of existing literature that focuses on one of these within teaching and learning environments. The positive view of discussion forums can be extended to

all literacy tools in teaching and learning, a view which is helped by students stating that they have had no technical difficulties in using the literacy tools and backs the results of previous research (*Chan and Ridgeway 2006; Mackey n.d; Elgort et al 2008; Song and Chan 2008; Churchill 2009; Deters et al 2010*).

The vast majority of the literature evidences literacy tools as a means for providing a collaborative, constructivist learning environment (*Parker and Chao 2007; McMillin 2005; Tetard et al 2009, Hoorn and Hoorn 2007; Elgort et al 2008; Parsons 2004; Yang 2009*). However, the data from the open ended questions suggest that the contrary is true: students do not view literacy tools as places for collaborative learning; instead viewing them more as personalised learning spaces. This contrary view supports the findings of Elgort et al (2008), Leung and Chu (2009), Ritman et al (2005), Wheeler et al (2008) and Craig et al (2008). Because the survey data along with the relevant referenced literature indicate that students have a positive view of the literacy tools and experience no technical difficulties, it can be suggested that whilst students have a good technical understanding of the use of literacy tools, they are lacking the pedagogical understanding of how to use literacy tools to aid their learning.

There is evidence to suggest that students and tutors are willing to use the latest technology, such as mobile phones, to access literacy tools online. The iPad would have been considered if it had been available in the UK before this research had been initiated. However, whilst mobile phones and iPads might increase the flexibility and efficiency of interfacing with literacy tools, they are not predicted to aid with the pedagogical understanding of how to use literacy tools to aid with the teaching and learning. Increase in efficiency and accessibility can be hypothesised, but not an increase in the pedagogical performance unless that understanding is in place before the technology is introduced and integrated into teaching and learning.

The data indicate students do not understand the pedagogical aspects of literacy tools because there is a lack of tutorials to empower the students with such knowledge. The link between lack of tutorials and lack of pedagogical understanding has been found in previous research (*Chan and Ridgeway 2006; Elgort et al 2008; Ritman et al 2005; Leung and Chu 2009; Wheeler et al 2008; Craig et al 2008; Bower et al 2006; Lamn 2004; Ebner and Maurer 2007*). The data shows that tutorials for students would not be a waste of resources as the students who had received tutorials stated that they were beneficial, and the importance of student tutorials has been highlighted in previous research (*Elgort et al 2008; Wheeler et al 2008; Bower et al 2006; Lamb 2004; Leung and Chu 2009; Elgort et al 2008; Ebner and Maurer 2007*).

The survey data also shows that there is a serious lack of tutorial support for tutors, which back the findings of Ashcroft and McAlpine (2004), Deters et al (2010), Bruns and Humphreys (2005), Craig et al (2008) and Tetard et al (2009). This would suggest why students have not received any training; if the tutors had not received any training then naturally they are not going to understand the benefits of such training for their own students. It can be argued from the data that, therefore, tutors rely on their general experience and that of the students to guide the use of literacy tools in teaching and learning. However, a general understanding of how literacy tools work does not constitute a substantial pedagogic understanding of the benefits

of literacy tools. Participants have suggested that they do not need the training as they have the required background knowledge, and also that they do not think that any literacy tools provide teaching and learning benefits. However, how can this group of tutor participants arrive at this perception without experiencing any form of formal training? How do they know that any learning is taking place when the student data is suggesting otherwise? Without observing the engagement of both student and tutors with regards to their use of literacy tools in the classroom, these questions are difficult to answer with just the survey data.

Altering teacher training courses so that tutors are better educated on the technical and pedagogical aspects of literacy tools would appear to be a positive endeavour, as the tutor participants who had received training indicate that it was of benefit to them. In addition to the survey data, various research literature (*Ashcroft and McAlpine 2004; Deters et al 2010*) calls for a need for tutors to understand all technical and pedagogical aspects of literacy tools; however, there is a lack of research into the current suitability of teacher training and professional development courses. It could, therefore, be suggested that the lack of student understanding of literacy tools can be attributed to the lack of understanding from and suitable training of the tutor.

The educating of the teaching workforce in their ability to understand the technical and pedagogic aspects of literacy tools is very important, because without this knowledge the tutors are not able to select the most appropriate literacy tool or tools for any given learning or teaching activity. They are, therefore, relying mostly on any previous experience that they have had with the particular literacy tool; however, and as has been previously mentioned, a perfect general understanding of literacy tools does not equate to a perfect pedagogic understanding of literacy tools.

There is, however, more work that needs to be carried out in order to establish if whether or not all three literacy tools can be used simultaneously, and to better understand the full benefits literacy tools can provide to teaching and learning, both from an individual and integrated approach. There has to be a detailed analysis of the effectiveness and content of any existing teacher training or professional development program in order to determine the current suitability of relevant training. The existence of any relevant training, according to the survey data, is of benefit to the tutors therefore more work needs to be done to incorporate literacy tool training in formal teacher training and professional development programs. Once the teacher training and professional development programs have been altered to include relevant training on literacy tool use and understanding, these then need to be monitored through longitudinal research to ensure that the tutors are gaining the correct knowledge and understanding. Longitudinal research will also have to take place in the tutor's classroom to ensure that their own tutorials for their students are just as effective as those on the teacher training and professional development programs.

## 6 Conclusions

Because of the popularity of all three literacy tools and because, in particular, discussion forums are more popular than was previously suggested, a culture of

integration can be developed. In addition, the data has revealed that tutors and students have used more than one literacy tool in a teaching or learning activity; why, therefore, has previous research only focussed on the implementation of one literacy tool when there is evidence that all three have been used? Whilst it is difficult to determine from the student data whether or not all three have been used simultaneously for their learning, there is evidence from the tutor data that more than one literacy tool has been used simultaneously for their teaching. The data supports, therefore, the need for a change in research direction to occur, from focussing on the implementation, uses and benefits of one literacy tool to an approach that considers the use, implementation and benefits of all three literacy tools in simultaneous use in a given teaching or learning activity.

Understanding the individual benefits of each literacy tool will empower the tutors with the knowledge to be able to integrate all literacy tools into any teaching and learning activity. Through gaining the knowledge and understanding of all three literacy tools, tutors would be in a better position to select the best literacy tool that they feel will best serve their teaching and their students' learning needs

Even though more work needs to be done to determine the true impact and nature of literacy tools on teaching and learning, the survey data indicates that it is knowledge and understanding that should drive students and tutors to realising the full learning and teaching potential of literacy tools, not a continuous drive for developing and introducing new technologies into the teaching and learning environment. Teaching and learning needs, in turn, drive the requirement for that knowledge and understanding

Empowering the tutors with the relevant knowledge could take one of two forms, or even both: empowering tutors with the knowledge of all three literacy tools so that they can best select which tool is most beneficial for a teaching and learning activity. Or, empowering the tutors with such knowledge so that they know how to integrate all three literacy tools within any given teaching and learning activity. A culture of integration revolves therefore not just around the use of all three literacy tools, but a knowledge and an awareness of all three literacy tools so that the best tool can be selected for any given teaching or learning activity. Empowerment of the tutors with such knowledge, awareness, understanding and, therefore, the ability to select either one or more than one literacy tool for any given learning or teaching activity comes from obtaining a suitable level of knowledge and education on their teacher teaching courses. This, in turn, would be passed onto their students so that the students can fully understand the literacy tools being used in the way that maximises their own learning potential and facilitate the learning that takes place.

A culture of integration, therefore, goes beyond knowing how to use and understand the technical and pedagogic aspects of literacy tools. This is very important, however, because without this knowledge tutors are not able to select the best literacy tool for their teaching and learning activities and not able to manage and measure the amount and quality of learning, and teaching, that is occurring. It will encourage a culture of integration, but such a culture has to have a much wider view; a much wider context, where technology plays only a part of this culture. It is about tutors changing their attitudes and perceptions regarding how better off they consider

themselves as tutors without the use of such tools; it is about tutors thinking outside of their comfort zone and accepting change. It is about students, tutors, institutional management, teaching course designers, teaching course managers, the tutors within those teaching courses and researchers working together to implement and integrate all three literacy tools and other technologies such as mobile phones and iPads into teaching and learning activities in order to find the most effective way that they can facilitate teaching and the management and development of learning and knowledge.

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