

Running Head: AN ANALYSIS OF ONLINE CURRICULUM CENTRE

An Analysis of Communities of Practice and the International Baccalaureate Online Curriculum Centre
Teacher Created Resources

Rachel M. Daniels

San Jose State University

Fall 2008

Abstract

This paper examines Communities of Practice and Virtual Communities of Practice through a review of literature. It explores the connection between collaboration and the use of the International Baccalaureate Online Curriculum Centre (OCC) as an example of a Virtual Community of Practice. Data was collected from the OCC teacher resource area and was analyzed to try to determine the effectiveness of the OCC teacher created resources. Recommendations are made for improvement of the OCC and increasing collaboration and sharing of knowledge.

Introduction

This paper will review and discuss the concept of professional collaboration through Communities of Practice (CoP) including some of the factors that influence the success of these communities. In particular this paper will look at the Online Curriculum Centre (OCC) of the International Baccalaureate (IB) website; a Community of Practice that provides a teacher created resource area for its members. The OCC is only accessible to IB authorized schools and IB candidate schools (those schools in the process of becoming an IB school) and is accessible only by logging in with a member ID and password. The OCC was accessible due to my employment at an IB candidate school.

The purpose of this study is to determine whether the OCC teacher created resources are an effective tool for collaboration based upon a review of literature and the data collected from the OCC. The effectiveness will be evaluated by reviewing the user-submitted descriptions of the resources and evaluating them based on a predetermined set of criteria. Following the assessment of the resources, recommendations will be made for improving teacher participation in this Community of Practice.

Literature Review

Collaborative learning is an important part of the learning process. In fact, collaboration is a social activity where participants can acquire and share knowledge (Liaw, Chen, Huang, 2006). By working together, learners are able to construct their own knowledge and engage in powerful learning (Van Merriënboer & Paas, 2003). One tool for collaboration is the Community of Practice.

Communities of Practice (CoP) have been defined by Etienne Wenger (2008) as “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (p. 1). Wenger goes on to explain that CoP’s have three main characteristics: the domain, the community and the practice. The domain refers to the fact that a CoP is not accidental or just a collection of friends. Rather, the members of the CoP join because they have a shared interest and

a commitment to that interest. The second characteristic, the community, means that the members share information with one another and are willing to help each other out. However, this does not mean that members must work together. The third characteristic, the practice, refers to the requirement that CoP members must also be practitioners not just people interested in a topic (Wenger, 2008). When these three characteristics are combined they form a Community of Practice. The CoP may take many forms including a Virtual CoP or VCoP as in the case of the International Baccalaureate (IB) Online Curriculum Centre (OCC).

A VCoP is defined by Ardichvili (2008) as an opportunity for community members to use online discussions or knowledge management systems to facilitate knowledge sharing. Ardichvili (2008) also states that VCoP's are not well understood and suggests a framework for understanding the success of online knowledge sharing and learning. Many large corporations such as Chevron, Ford, Xerox, Raytheon, and IBM (Ellis, 2001) use VCoP's for knowledge management and therefore consider the VCoP an important tool for collaboration and learning (Rosenberg, 2005).

When examining the research related to collaboration and VCoP's, it becomes clear that there are several factors that can lead to the success or failure of CoP's. One factor that contributes to the success of VCoP's is the level of participation of its members (Ardichvili, 2008). The members of a VCoP generally have a common interest or goal which increases a person's likelihood to participate. Another factor contributing to the success of VCoP's is the opportunity for the user to make gains personally or professionally. In the case of the OCC, participation is restricted to members of IB Schools and IB Candidate Schools. Because everyone is a member, users of the OCC have already made a commitment to the collaborative learning and knowledge sharing by virtue of the IB philosophy. A major factor in motivating people to participate in VCoP's is trust. This trust can be established by the group, or by the institution that supports the VCoP (McKnight, Cummings, & Chervany, 1998). Members are more likely

to contribute when they feel safe sharing information as is the case with the OCC. Because all IB schools share a common philosophy of teaching and learning, users of the OCC can feel confident that the information they share will be respected by other members.

“Communities of practice are voluntary, what makes them successful over time is their ability to generate enough excitement, relevance, and value to attract and engage members” (Wenger, McDermott & Snyder, 2002). In communities like the OCC, the excitement comes from the desire to share and disseminate knowledge into IB classrooms and schools. Teachers are able to network with other IB teachers around the world and share ideas and successful teaching strategies. This approach not only embodies the IB philosophy, but also promotes collaborative teaching and thinking strategies.

Potential barriers to the use of VCoP's are the lack of time and the lack of knowledge by participants (Hew & Hara, 2007). Because these communities are completely voluntary, members may or may not participate at all times. Also, teachers are often strapped for time and this may limit their level of participation in a VCoP.

Design of the Study

A survey of teacher created resources was conducted using the IB OCC. The survey focused on the details of each teacher resource posted and an analysis of data collected was conducted in order to determine the implications of that data. A literature review was also conducted in order to learn about research related to Communities of Practice and collaboration among members. This literature review, in conjunction with the data analysis of teacher posts, led to recommendations for improvements and changes to the OCC and the way that teachers post resources for collaborative use.

Prior to creating the data collection sheet, I evaluated the teacher resource submission form on the OCC website to see what terminology was used. This information was then used to create the data collection sheet. By examining both a sample resource as well as the submission form, the assessment

tool was created. The criteria for the data sheet was based on the submission terminology provided by the OCC. Six criteria were selected for evaluation: Title Relevance, Description Content, Reason for Recommendation, OCC User Rating, Number of Votes, and Resource Age. After the data collection sheet was created, five categories were selected from the OCC list. From these, five teacher created resources were selected from each category providing a total of 25 resources to evaluate. The data was collected, an analysis was performed and recommendations were made based on these findings.

Data Collection Procedures

The member only area of the IB Online Curriculum Centre (OCC) was accessed using a user ID and password assigned by the IB. After logging in to the Primary Years Programme section of the OCC (www.occ.ibo.org), I entered the teacher resource area by clicking on "View Resources". Next, five teacher created resources from five different categories (25 total) of the teacher resource area were randomly selected. Data was collected from the selected resources using specific criteria such as OCC user rating, and relevance of description. Each resource was evaluated using a three point scale with three being the highest score. A score of one represented missing or insufficient data while a score of three represented a thorough explanation or example. When looking at the number of votes, resources with one to seven user votes received a score of one on the rubric, eight to fifteen received a score of two, and sixteen or more votes received a score of three. Similarly, the age of the resources was scored using the following scale: one to six months old was a score of one, seven to twelve months was a score of two, thirteen or more months was given a score of three. All of this data was recorded in a spreadsheet and analyzed.

Analysis of Data

In Figure 1, below, the data reflects the average scores of each teacher created resource in each of the five categories. The data shows the correlation between the age of the resource and the number of votes received. In three of the five cases it appears that the number of votes is closely tied to the age of the posting.

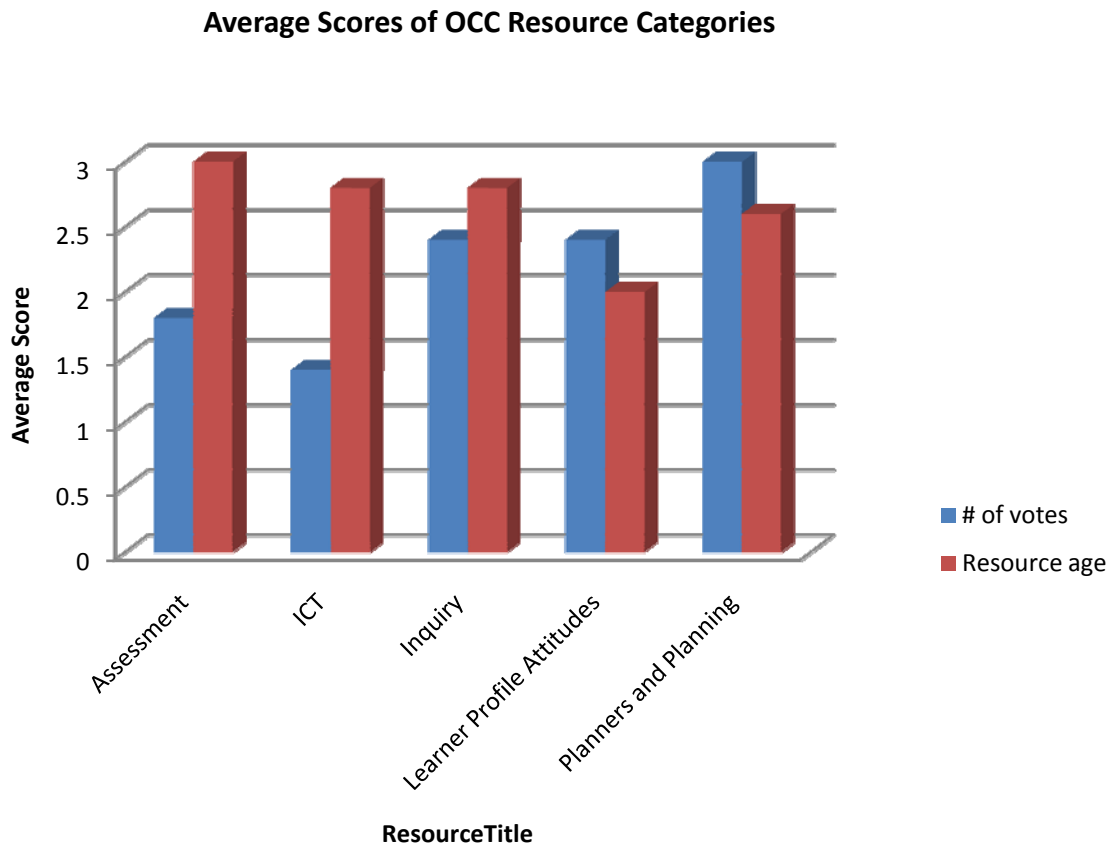


Figure 1: Average scores by category

Figure 2, shows the data for the five resources selected from the assessment category. There is no clear pattern that can be established from this data. And, it is difficult to tell whether there is any association between the title relevance, the description and the number of votes. This may be attributable to the sample size.

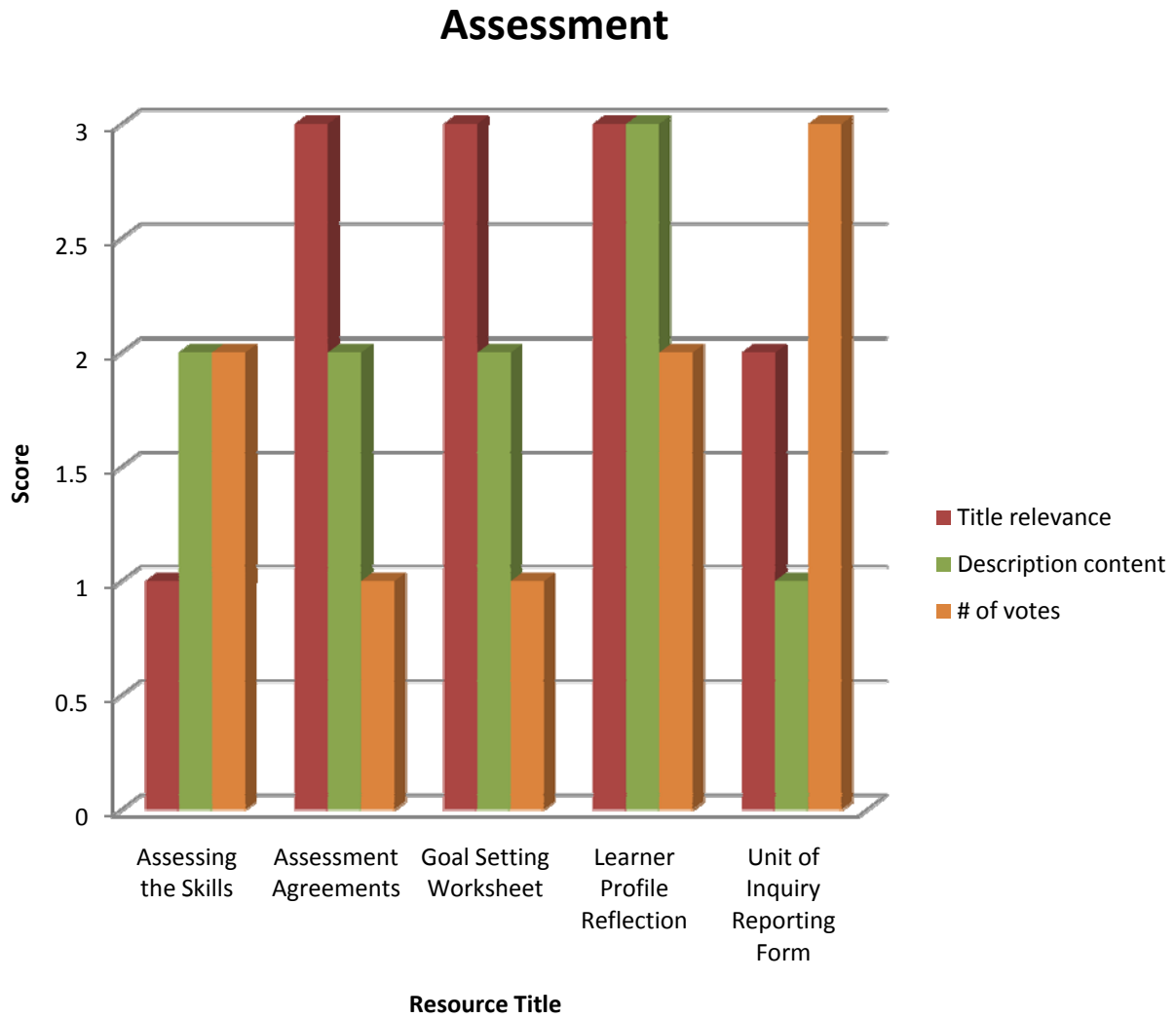


Figure 2: Assessment resources

In figure 3, below, we see the correlation for the description, title relevance and number of votes for the inquiry category. Again, it is difficult to declare a definite pattern, however, it does appear that there is a connection between the description and the number of votes.

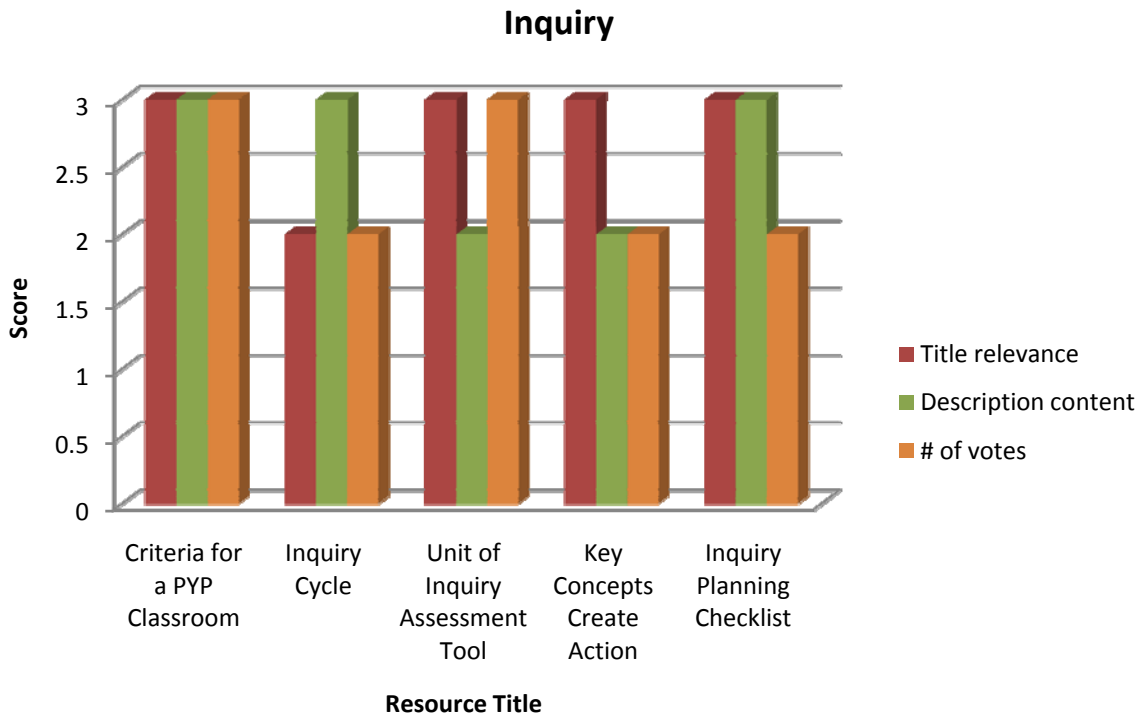


Figure 3: Inquiry resources

In the category of Learner Profile /Attitudes, there is a closer relationship between the title, description and votes. Again, this may be related to the sample size. It does appear that if the resources have an accurate description then it is likely to receive more votes. Figure 4, below, shows this relationship. In the categories of Learner Profile/Attitude and ICT, the 'Description Content' had the highest overall scores, as shown in figures 4 and 5.

Learner Profile/Attitudes

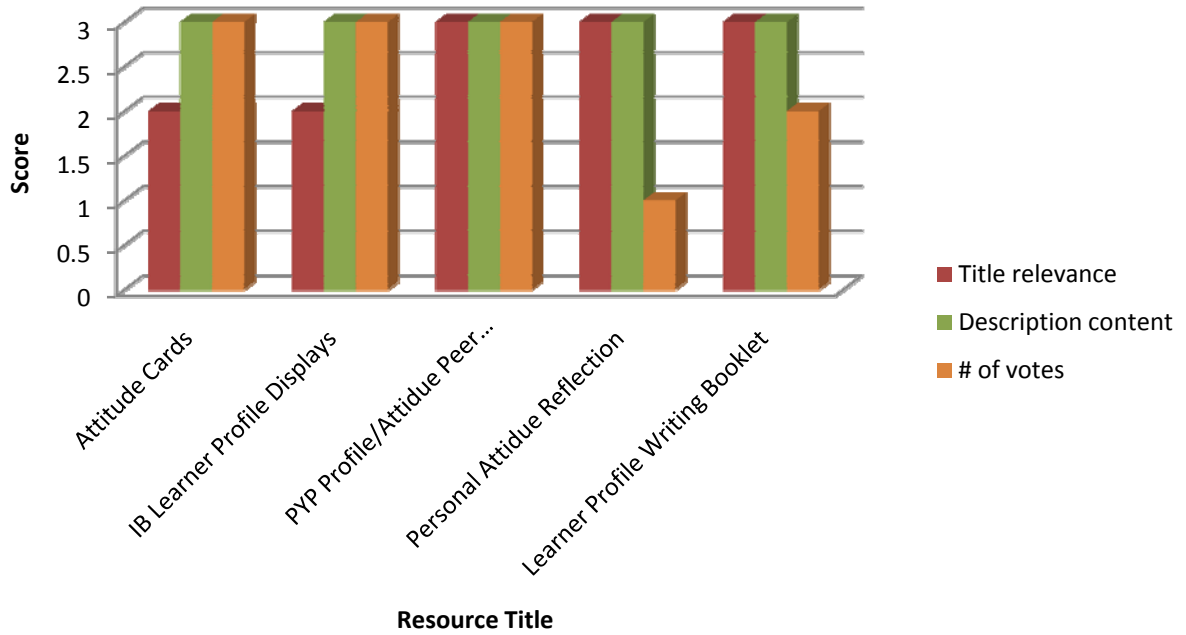


Figure 4: Learner Profile & Attitudes resources

Information Technology (ICT)

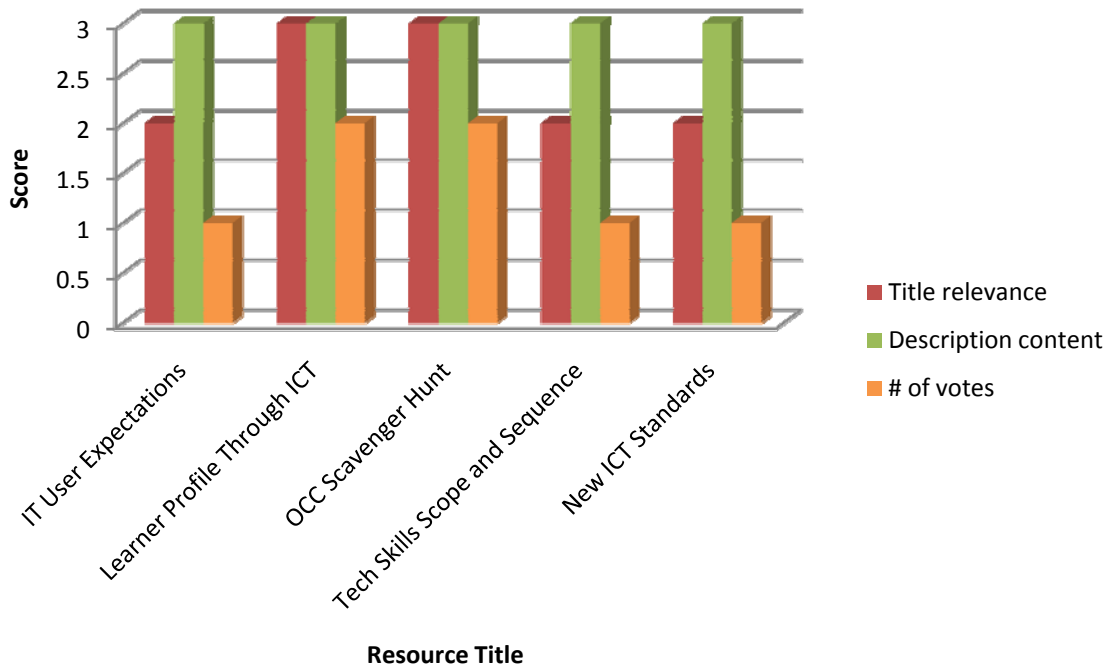


Figure 5: ICT resources

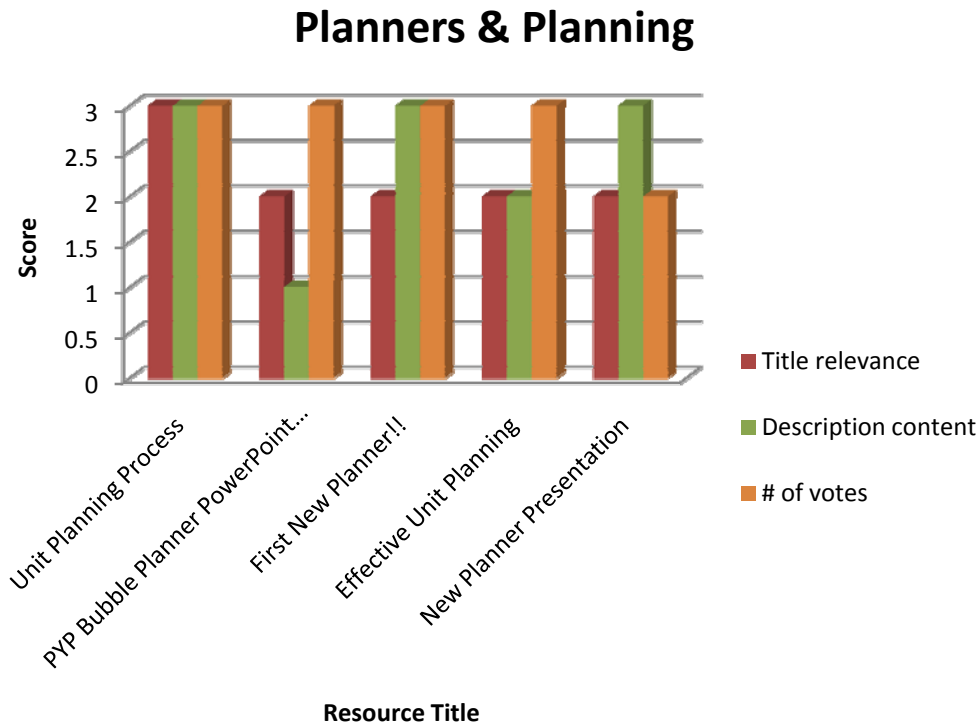


Figure 6: Planners & planning resources

It is important to note that when the resources are initially seen in a list (index page) on the OCC, only the name, stars, votes and the more button (allowing view of full information) show. The presentation of this information may lead to selection of a resource based primarily on these factors. If a resource had a low vote count and low user rating, a user may not click on it unless the title was outstanding.

Finally, when looking at all resource categories, it is still difficult to establish any pattern or correlation.

Summary & Recommendations

When analyzing the data from the OCC, it became clear that there was insufficient information available through the website to arrive at clear conclusions. For example, we do not know why people voted the way that they did for a particular resource because the reasons for the votes are not given. In addition, we do not have a tally of the number of OCC user ratings for each rating group (excellent, very good, good). Through trial and error, it was discovered that there is in fact a flaw with the rating system as only the most recently entered rating appears. This is deceptive because it leads you to think that the rating is the average score for all votes but in actuality it is the total votes and only the last rating. This means that there is no way of knowing how many users rated the resource as excellent, very good, or good. We are only able to determine how many people voted and the rating given by the last user. Clearly, this is an area for improvement. I would recommend that each rating be displayed along with the date of the vote so that trends could be identified. The current method could lead people into thinking that a resource was better or worse than it actually is.

Another recommendation for improvement would be to require that all fields be filled in when submitting a resource. This would ensure that users would get a complete picture of the resource when clicking on a resource.

One positive aspect of the OCC is that members can post any number of resources. In addition, the user is able to decide which category to post the resource to. This allows the user to personalize the posting based upon their own professional knowledge rather than based upon the decisions of the computer or another person. This flexibility also allows the user to post a resource to multiple categories and to create their own description of the resource. The ability to post resources created in any language also allows for flexibility based on the individual needs of the community.

The OCC might be improved by allowing users to add comments and feedback to the posted resources. Currently, the only way to do this is to re-post the resource as your own and add a “reason for recommendation”. A problem with the current method is that it may result in duplicate postings of the same resource. Additionally, there is no way to link another user’s update to a previous users file. In other words, if I created a document and someone modified it to improve it, it could only be posted as a new resource. And, the new resource would not be linked to the previous resource.

Since the OCC is web-based, users can access it at anytime, anywhere. This convenience is helpful in alleviating the issues of time (or lack thereof) that most teachers face and could potentially limit collaboration.

In summary, the OCC is a Virtual Community of Practice as it is an online community where members share a common passion for the IB philosophy and teaching and they freely share resources with one another. The community is based upon a sense of trust that the information will be accepted in the spirit that it was shared and will inspire others to continue to add to the community of knowledge. Although there are flaws in the OCC system for posting teacher resources, it is a successful tool for online collaboration.

References

- Ardichvili, A. (2008, June 3). Learning and knowledge sharing in virtual communities of practice: motivators, barriers, and enablers. *Advances in Developing Human Resources* , 541-554.
- Ellis, K. (2001). Sharing the best practices globally. *Training*, 38(7) , 32-38.
- Hew, K. F. (2007). Empirical study of motivators and barriers of teacher online knowledge sharing. *Education Tech Research Development* , 573-595.
- Liaw, S. C. (2008). Users' attitudes toward Web-based collaborative learning systems for knowledge management. *Computers & Education* 50 , 950-961.
- McKnight, D. H. (1998). Initial trust formation in new organizational relationships. *Academy of Management Review* 23(3) , 473-90.
- Rosenberg, M. (2005). *Beyond e-learning: Approaches and technologies to enhance organizational knowledge, learning, and performance*. New York: Pfeiffer.
- Van Merriënboer, J. J. (2003). Powerful learning and the many faces of instructional design: towards a framework for the design for the design of powerful learning environments. In E. De Corte, L. Verschaffel, N. Enstwistle, & J. J. G. Van Merriënboer (Eds.). *Powerful learning environments: Unravelling basic computers and dimensions* , Oxford: Elsevier Science.
- Wenger, E. (n.d.). *Communities of Practice-- A Brief Introduction*. Retrieved November 10, 2008, from Communities of Practice:
http://www.ewenger.com/theory/communities_of_practice_intro.htm

Wenger, E. M. (2008). Cultivating communities of practice: A guide to managing knowlege as cited in .
Learning and knowledge sharing in virtual communities of practice: motivators, barriers, and enablers , 541-554.