

Analysis of a Technology Innovation in the Classroom

Applying Technology to a Problem of Practice in Education

Overview

- **Name of reviewer:**

Marc Compton

- **The technological and educational innovation (in 1 sentence or less):**

I will be analyzing the classroom capabilities and effectiveness of the Inspiration/Kidspiration/Webspiration software.

Note Since there are 3 different programs, I will just use Inspiration to address the technology since that is the main platform that the other programs follow.

The Problem of Practice: A Need or an Opportunity

- **What is the important educational need or opportunity that this project seeks to address?**

Inspiration is a software platform that provides the ability to express idea connections in visual webs or flowcharts then seamlessly transfer these charts into organized outline formats. The software's framework in which the author can construct charts/outlines is nearly endless and the program provides an extensive library of pictures as well as the ability to insert multimedia into the charts. Also the feature that quickly transfers the author from the visual charts to the outlines is a tool that helps student's see how a visual thinking can be organized into an outline format then into a paper format. This software could be used in either a teacher dominant led discussion setting or individual student projects. See this link from [Inspiration's product](#) website to see a video that illustrates how the program's interface functions.

- **How would you know you were successful?**

A teacher could judge the success of this software by a multi unit comparison. For example, a teacher might structure each unit with the same purpose such as an argumentative paper. For the first unit the teacher will introduce a question that students must weigh evidence then come to a conclusion from information in each lesson. Inspiration will not be used in this unit just separate charts that the teacher may handout. At the end of the unit the students will have to throw out all of the information onto an evidence chart. After analyzing the evidence the students will then make a conclusion and defend their paper with an argument using the evidence from the lessons. The teacher will then use a rubric to assess how well the evidence connects to the thesis and how well organized the students have made their thoughts, which is normally a big weakness.

During the Second unit the teacher will pose a very similar question type that requires students to weigh evidence from each lesson then develop a conclusion that must be defended with the evidence. This time around the teacher will use Inspiration in class guided activity that has students throw out evidence that supports different positions. The teacher will plug in the different pieces of evidence into the visual chart so that the students can see how exactly each piece of evidence matches up. For some students the visual evidence might be all they need to construct a well organized argument but for students that have difficulty organizing visual ideas they can simply click the outline function to see how a visual diagrams ideas are then transferred into an outline format. For the pieces of evidence they feel best defend their position they can just use the outline to structure their argument. The teacher will then collect the papers and use a rubric similar to the one from the previous unit that assesses the connection of the evidence to the thesis and the organization of the student's thoughts.

If the student's have shown an improvement in grades then I believe that will evidence that the software worked in accomplishing its goal of providing an easy platform to brainstorm in order to help structure toward an organized paper.

note: *Of course there are several other factors that could skew the grades which would result in an unclear conclusion of the effectiveness of Inspiration. For example perhaps student motivation has changed for some reason outside of the teacher's control. Also some students may just "get" the second assignment and do better because this assignment will be a second repetition of the first which often yields better student success whether Inspiration is being used or not. Also general student attendance could affect the outcome. Other things that might come into play are extracurricular events such as homecoming/prom/sports events/performances which could impact the amount of time the student may have to prepare.*

The Setting

- **What are the important characteristics of each of the following areas related to this project?**

Teacher: Must be trained to quickly insert verbal ideas into the chart. Teacher must also have an overhead projector with computer capable of running the Inspiration software.

Learner: Must be prepared with materials and notes from previous class periods during the unit.

Subject Matter: World History/American History (*software can work for ANY subject*)

Setting: Traditional Classroom, Teacher dominant led period, Suburban School district, 30+ students per class

Technology-Integrated Solution

- **Brief Summary: In 1 paragraph, provide a compelling but realistic description of the solution to the problem of practice where technology is an integral part of the solution**

As stated during my Inspiration success assessment above, I would first use this software to organize the writing process for argumentative paper assignments. The outline to visual (and vice versa) format really streamlines this process for students that have difficulty with making the connection. Another case that this software would be suitable for use is teaching students how to use the software, which could be done in very short time. I would have the students make a visual map of topics to show the interconnectivity of concepts and to illustrate topics with relevant visuals or videos (both capabilities of the latest Inspiration version). This could really help students create cohesive projects that clearly illustrate how the curricular ideas connect.

- **Rationale: In a few paragraphs, provide the basis for having confidence that this solution will make a meaningful difference in addressing the educational need or opportunity.**

As mentioned in both the Brophy and Brabec articles, finding ways for students to visually connect ideas together reinforces understanding. One teacher described understanding as a “web of knowledge”; this innovation literally brings that teacher’s analogy to life. The Inspiration program achieves this goal of effective education. Initially I believed that Inspiration was a useless bell and whistle that would only complicate something that a good piece of chalk and chalkboard could do, however after researching this technology in-depth and experimenting with Webspiration, I have reversed my position. This is a great innovation that could really make the mundane parts of education such as factual note-taking into a more interactive experience. As noted by Professor Bell in the Didactic teaching method, a weakness of this model is that students lack interaction which turns them into passive learners. I think having this technology will make students more active because they are not just “taking notes” but they are turned into creative decision makers and researchers that can scour the internet for videos that might illustrate one of the key topics in their notes.

- **Logistics of solution:**

Inspiration can be used in two different formats that include both teacher dominant instruction as well as student directed formats (both group and individual).

- **Teacher Dominant Example:**

- **Materials:** LCD projector, computer with Inspiration software, (wireless mouse/keyboard could be useful so that the teacher can type and look at the class in a way that maintains teacher/student engagement). Students would need books, pencils, unit assignments
- **Class use format:** Students would be working toward taking a position on a question. They must use information from previous unit assignments to compose a table of pros and cons over the question. The teacher would ask the students for evidence that supports the pro side, which would be typed into bubbles on the pro side. At appropriate times/places, the teacher could dump in relevant visuals to make the point more memorable or connected to a visual idea. The teacher would then proceed to repeat the previous step for the Con side. The students must then weigh the evidence to develop a position/thesis/conclusion. After analyzing the information the students will begin the writing portion of the assignment at home. The paper will be graded on how well the students connect the evidence to their position and how well they organize their argument. This is where Inspiration should be very helpful. The teacher will publish the outline and visual versions of Inspiration on the internet (or print out handouts for students without web access) so that the students have this resource to keep their thoughts

organized. Basically what the students are doing, is filling in the blanks on the outline format or describing the connections they see on the visual chart.

- Individual/Group Driven Example:
 - **Materials:** LCD projector, 35 computers (Desktops or laptops) with Inspiration software installed, 3-4 class periods, textbooks, Internet connection
 - **Class use format:** Students would take a unit from their textbook and make a visual web map that illustrates and connects the content ideas. They can do this either in pairs or individually. The challenging part of this assignment is determining relevant ideas that connect. Most students attempt to write everything down so determining relevance will be one of the main skills assessed here. For this example we will assume that the students have a basic idea of how to operate the Inspiration software. The teacher will begin the class introducing the main objective that we will be working on via a short PPT presentation. Some of the requirements will be to include 3 relevant multimedia videos that illustrate curricular concepts as well as a certain amount of elaborating bullet points that build understanding of the topic. Also the students must include a certain amount of relevant visuals that illustrate curricular points. Part of the daily intro routine will be to login to their computers. At this point I will model a basic start to the project and how to determine relevance then connect the points together. The time allotted complete this assignment will be determined by the amount of content I want/need to cover. I realize that students will not have this software in class so they can only work on it at school. When the students are completed they will save the presentation using a name I give them then submit the file via Blackboard where I will comment and grade the projects.

Benefits of this Solution

- Unfortunately I have not used the Inspiration software in class so I have difficulty in truly knowing how effective it is in achieving the goals I hope to achieve. I have only sampled the beta version of Webspiration which despite its limitations was very intriguing. Using my teaching experience and my course readings the variety of visual and textual learners will both be appeased with this software. My favorite part that I believe will be the most effective is the seamless transition between charts to outline is painfully simple to use and can be a great benefit for students organizing their thoughts into a cohesive writing piece that ties all of the information together. Several people have provided testimonies that clearly support the advantages advertised for Inspiration. For example in regards to organization one person had this to say "An excellent way for teachers and students to get organized!" Another person had this to say:

The program made students think. After linking their words into categories, when the outline came up many saw that some words needed to be in another group. They went back and revised and ended up with a better product.

I do trust these stated claims because the website I found them also addressed some of the same concerns I initially had about the program. For example one person stated:

Sergio: "I kept forgetting to un-highlight my stuff and lost it, but then I learned how. Now it's easy to change stuff when I want to."

Or

Kim L.: "I liked putting pictures next to my word boxes, but I needed more pictures. I wish they had more."

The presence of both positives and negatives showed that this was a solid product being supported by legitimate testimony and not an unrealistic positive propaganda message. Judging from blogs, and other website ratings as well as my own judgment I think that this tool will be very effective.

Implications:

- **What lessons can we learn from this project regarding technological innovations in education?**

I think that the main idea that I took away from this project is that sometimes the tech innovations that seem to be bells and whistles turn out to be even more interesting and useful than the tradition pencil and paper methods. Initially I thought that this program was just another gimmick that only complicated something students could do without technology however my discovery was much different. Obviously the pencil and paper methods of achieving my model lessons would be perfectly possible in a reasonable amount of time but I believe that if this technology was properly implemented students would be able to develop a stronger web of knowledge that could easily transfer into writing assignments. Also mundane skills such as note-taking that I work on with my students could be made a little bit more exciting with inserting multimedia and pictures to illustrate the points in their notes. One word of caution I do have in closing. I do worry that some of students artistic skills would be neglected, left to rot because instead of actually creating their own hard copy of something that illustrates creativity, they will have the computer will do it for them. I wonder if this is another case that exemplifies the erosion of art, one of the most important features of civilization. Will this further reinforce the decay of this magnificent ability and need people have to express themselves?

- **Will you implement a variation of this project in your own setting? If not, why not? If yes, how will you vary the project to match your own setting?**

I will certainly implement this technology in my classroom if the infrastructure permits me. I believe that I stated a very practical way that I could use the facilities I have at my disposal at Rochester High. I am very fortunate to have many of the resources needed to execute this innovation in a way that will improve my students understanding. The only question is will I have enough copies of the program to do the individual/pair activity or will I be limited to one copy that will allow me to only perform the teacher dominant idea. Obviously the uses of this technology stretch far wider than what I have brainstormed but I think that if I were to purchase such a program I would be more apt to research ways that other social studies teachers use the tech and will also develop my own ways that would expand on what I have written here.

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