



Interdisciplinary Studies Feature

Hierarchical Models and Interdisciplinary Studies: Construct, Compose, and Communicate

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Abstract

With more students and less time, teachers from different subject areas are encouraged to work collaboratively with each other. Implementing the hierarchical design model at the early stages of students' learning will increase their chances of learning to think analytically in all of their classes. Specifically targeting social studies and language arts for K-12 students, the authors of this paper suggest that teachers' time and efforts spent in designing interdisciplinary lessons on the front end of instruction will culminate in a stronger exhibition of synthesis from students. Individual modifications can tailor the following ideas to suit topics in social studies curriculum throughout the school year while strengthening reading, writing, and communication skills in language arts.

As students move through school, they gradually see connections between individual academic subjects and the “big picture”. Implementing interdisciplinary studies early in students’ education provides effective methods for combining new knowledge from two or more subject areas and produces more concrete representations. By applying newly-learned information to other areas of their academic lives, students have a greater retention rate and can integrate relevant material more effectively in the future. Success with interdisciplinary studies is largely due to the willingness of teachers to collaborate with each other in devising creative assignments and unique methods of instruction. Darling-Hammond (1999) stresses, “The complex learning needed to use knowledge for problem-solving and invention rather than rote recall depends on immensely skillful teaching that does far more than ‘cover the curriculum’”(p. 2).

Using multiple subject areas to teach large, gripping concepts will close the educational gap when individual subjects leave out substantial fundamentals. The authors of this paper are convinced that social studies and language arts are two disciplines that can join forces and create learning experiences in which students actively participate and productively thrive. Sunal (2002) acknowledges, “Social studies can integrate mathematics, science, art, music, physical education, health, reading, language arts, and all other content areas” (p. 9). This integration should occur early in students’ education because forming natural interaction between subjects prepares students for application to all areas of their lives. In this first issue of *Social Studies Research and Practice*, Catapano and Song (2006) explain, “In many states, teachers working in primary grade classrooms are under pressure to cover all of the content areas; however, lack of time each day to cover everything [often results in] social studies being eliminated from some state testing requirements...Social studies *can be*, and many times *is*, covered within the children’s literature.” Literature and language arts effectively become the vehicle for application of knowledge gained from studying social studies in context.

The directional aim for inquiry-based instruction involves students in becoming engaged with communities of learning and being resourceful in their efforts to tap into knowledge across the curriculum. Greene (2001) asserts, “We [as teachers] know about the ‘blurring’ of the disciplines; we know that each discipline is inevitably stamped with points of view...All we can do is multiply the disciplinary approaches we use as sources of perspectives...a recognition that location, situation, and life history play legitimate parts in shaping the interpretation” (p. 87).

Procedure

Two subjects like social studies and language arts can formulate a theme-based unit in order to provide inquiry-driven teaching through researched projects required by both teachers, such as an assimilation of historical data with literature written during the same time period or specifically researched topics from history applied to constructing a sound persuasive essay. Finkel (2001) acknowledges the positive outcomes resulting from this type of learning: “Inquiry-driven teaching not only uses inquiry as a basis for organizing teaching and learning, but it also teaches inquiry. Most problems can be fruitfully approached with the tools, resources, and perspectives of more than one academic discipline” (p. 217).

Our study refers to the hierarchical process as the three *C's* as in *Construct*, *Compose*, and *Communicate* because all three steps include skills that are instrumental in developing a student's ability to critically think and argue an idea. Handouts for the process are located in the appendices of the article. Teachers should generate a rubric prior to the lessons; see [rubistar](#) and Appendix A for ideas for creating rubrics.

1. Construct the hierarchical model. The first step in the process is to construct the hierarchical model design using Inspiration[®] software ([Inspiration Software Free Download](#)) as the teacher defines the topic for the entire class. It is recommended that the topic be as broad as possible. For example, consider the varying aspects of the [Civil War](#) or the Civil Rights Movement (e.g., demographics involved, basic disagreements, preparation, etc.). Threaded areas of research include examples such as the teacher selecting the Civil War: The teacher's hierarchy may begin with South Carolina seceding from the Union, and a student could research the Emancipation Proclamation. Students should investigate varying aspects of the broader topic in order to discover specific historical evidence in the construction of their personal hierarchies. Sources that are authentic and content specific include using the school library and the following websites: [Alabama Virtual Library](#), [Marcopolo](#), [The History Channel](#), and [Discovery Channel](#). Once the students have collected their data, they need to **narrow the focus** by the highlighting key aspects of their topics. They should become so familiar with their specific topic that they become the *class expert* on their specific portion. Student will **arrange their information into a hierarchy** by identifying the dominant portion and outlining three to four subordinate facts. For example, the Emancipation Proclamation created by Abraham Lincoln can be used as the dominate portion, and reactions from the South and the North and African Americans can be used as subordinate data. The hierarchy design can also go side ways but should not exceed the starting point created by the teacher. Students will place their own hierarchies next to an event in the order in which they believe the situation is related. Once they have placed their hierarchies on the wall, students will continue the process in the language arts class. Each student should be aware of other students' hierarchies in order to issue challenges. For example, a student may question how Lee's surrender is related to Lincoln's assassination.

2. Compose the essay. Carrying the discussion to the language arts classroom, students should *compose* an argumentative essay which reflects the research relevant to points on the hierarchy. The grade level of the students will determine the degree of writing to be assigned. Both non-fictional and fictional literature is recommended by the teacher because so many books considered historical fiction can supplement the students' research efforts; the teacher may require students to present a book report rather than an essay. Studying poems and songs written during particular time periods may lead to students writing poetry about their researched topics. The literary genre chosen by the language arts teacher will serve as another opportunity to strengthen students' knowledge about the researched material. The teacher will guide them in the process of disseminating sound evidence, formulating clear arguments, and writing [persuasive/argumentative essays](#), poems, or reports. Recommended sites are [Bedfordstmartins](#); [Teacher Scholastic](#); [Writing a persuasive essay](#), [Writing an argumentation essay](#), and Appendix B. The most important part of the language arts step

is for students to take the data compiled and use it to form a defense for their hierarchy. Students are directed to create an outline highlighting the key issues for discussion in the social studies debate and compose their papers by including the reasons for their position on the hierarchy or why they disagree with another student's hierarchy. Development of the paper includes researched evidence and a passionate plea to the jury as to why their argument is correct. Once the paper is complete, fellow students assist in editing and revising as necessary, paying special attention for cohesiveness of evidence; students then write the final copy to turn in to both teachers for a total of two drafts with each paper roughly two pages in length.

3. Communicate the viewpoint. In order for students to prepare to *communicate their viewpoints*, their learning to debate is a crucial communication skill needed for effectiveness; see [Debate Skills](#) and Appendix C. Students continue to practice debate skills in the social studies classroom until the scheduled day of their personal presentations in the form of a public defense. Students also learn how to serve as jury members in order to assess fellow classmates' arguments using their own differing points of view. The hierarchical model serves as a visual display of the students' most significant points which takes place in the social studies class. Each student will have two minutes to present his or her argument, and the other students in the classroom will serve as the jury. The student's who are debating will use their essays as reference points and evidence to support their positions. Each student questions another student's position by presenting his or her personal essay as a rebuttal to the first students' essay. The observing students serve as the jury, evaluating the effectiveness of the presentation and the hierarchy model, and completing a jury sheet that has points assigned for certain portions of the arguments. After both students have presented their viewpoints, the jury votes to see if the student's hierarchy remains on the wall. If the student's persuasive essay does not persuade the jury, their portion of the hierarchy will be removed. The teachers will have prepared the surveys for students to complete after all of the debates are over. See the following sites for survey questions: [Journal of Statistics Education](#); [Communications of the ACM](#); [Analyzing Data](#). Once all the students have presented their positions for and against a hierarchy, they will complete the surveys (Appendices D and E) relating to the effectiveness of the project. The researchers will take this data and use it to see the effectiveness of this interdisciplinary project. The social studies and the language arts teachers will complete informal surveys (Appendices F and G) in order to provide feedback to the researchers in this study.

Conclusion

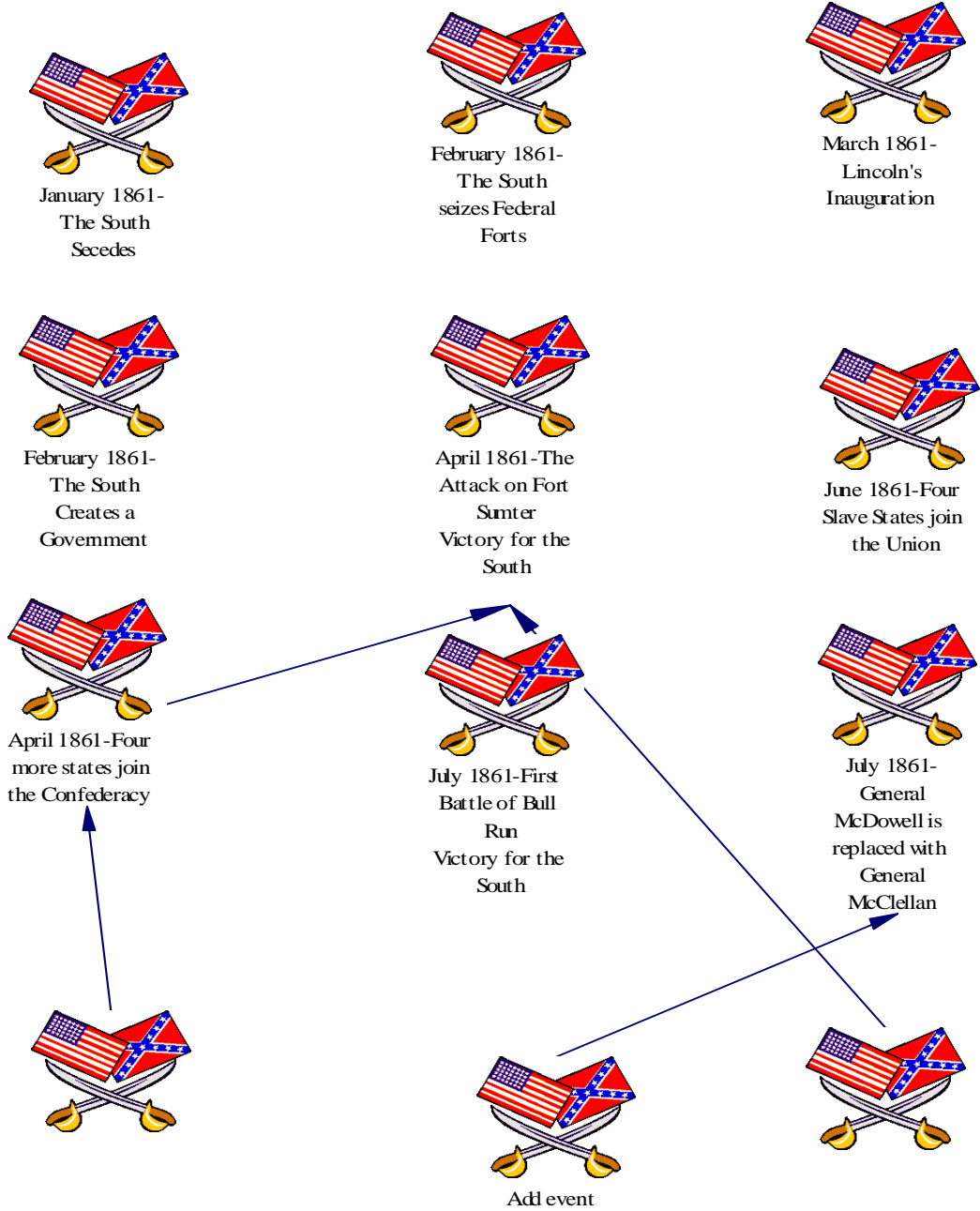
When students research and publicly present varied issues surrounding a particular historical event, they are exposed to and encounter a broader range of knowledge than one textbook can provide. Students are involved in active learning rather than passively listening to teachers' lectures, and they are more responsible for their own learning if they have to prove their opinions and beliefs to others. Teachers serve as guides who assist students in the journey of research and retrieval. Teachers' collaboration with other teachers opens up new areas of interest and knowledge to take back to other classes. Students are surveyed about the process when the assignments

have all been completed. They are given the opportunity to suggest changes and relate personal experiences and preferences. Students become decision-makers throughout the process and in planning for future interdisciplinary collaborations.

References

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Appendix A Design Model Design Model for the Civil War



Paragraph 5: Closing arguments. Reassert key points and make a passionate final plea for your position.

***Once you have completed these steps, you should compose your final paper.**

Appendix C Debate Sheet for Jury

Class Debate :

Teacher Name: _____

Student
Name: _____

CATEGORY	10-8 Score: _____	7-6 Score: _____	5-3 Score: _____	2-1 Score: _____
Use of Facts/Statistics	Every major point was well supported with several relevant facts, statistics, and/or examples.	Every major point was adequately supported with relevant facts, statistics, and/or examples.	Every major point was supported with facts, statistics, and/or examples, but the relevance of some was questionable.	Every point was not unsupported by evidence relevant to the event.
Rebuttal	All counter-arguments were accurate, relevant, and strong.	Most counter-arguments were accurate, relevant, and strong.	Most counter-arguments were accurate and relevant, but several were weak.	Counter-arguments were not accurate and/or relevant.
Presentation Style	Student consistently used gestures, eye contact, tone of voice, and a level of enthusiasm in a way that kept the attention of the audience.	Student <u>usually</u> used gestures, eye contact, tone of voice and a level of enthusiasm in a way that kept the attention of the audience.	Student sometimes used gestures, eye contact, tone of voice and a level of enthusiasm in a way that kept the attention of the audience.	Student had a presentation style that did not keep the attention of the audience.
Organization	All arguments were clearly tied to an idea (premise) and organized in a tight, logical fashion.	Most arguments were clearly tied to an idea (premise) and organized in a tight, logical fashion.	All arguments were clearly tied to an idea (premise), but the organization was sometimes not clear or logical.	Arguments were not clearly tied to an idea (premise).
Understanding of Topic	The student clearly understood the topic in-depth and presented his/her information forcefully and convincingly.	The student clearly understood the topic in-depth and presented his/her information with ease.	The student seemed to understand the main points of the topic and presented those with ease.	The student did not show an adequate understanding of the topic.

Total /50

Comments:

Appendix D
Hierarchical Model Project
Informal Survey
For the Student

Please respond to the following questions using the scale below:

<i>Strongly agree</i>	<i>Agree</i>	<i>Unsure</i>	<i>Disagree</i>	<i>Strongly disagree</i>
5	4	3	2	1

1. Did you find this activity useful? _____
2. Would you like to do more activities like this? _____
3. Was the teacher helpful? _____
4. Was the assignment difficult? _____

Short Answer:

Do you have a better understanding of how to develop an argument after this assignment and why?

Which part did you find to be most beneficial and why?

Which part did you find least beneficial and why?

Based off this activity, do you think you will be better able to make decisions? If your answer is yes, state your reasons, if not, state your reasons.

After this assignment, do you think you are better equipped to develop a persuasive essay? If yes, state your reasons, if not, explain your reasons.

Appendix E
Post-Test

Name: _____

1. Describe a hierarchy and how it may be used.

2. What are the steps for developing a strong argument?

3. What constitutes good research?

4. If you are a jury member, what do you look for when someone is on trial?

5. How would you create a counter argument?

Appendix F
Hierarchical Model Project
Informal Survey
For the Social Studies Teacher

Please respond to the following questions using the scale below:

<i>Strongly agree</i>	<i>Agree</i>	<i>Unsure</i>	<i>Disagree</i>	<i>Strongly disagree</i>
5	4	3	2	1

1. Did you find this activity useful for this class? _____
2. Would you like to do more activities like this with this class? _____
3. Do you think the students, as a class, found this activity useful? _____
4. Do you think the students found this assignment difficult? _____

Short Answer:

Do you think your students have a better understanding of how to develop an argument after this assignment, and why?

Do you think your students have a better understanding of how to develop a hierarchical model, after this assignment, and why?

Would suggest doing this assignment again for next year’s class; why or why not?

What would you suggest to improve on this project?

**Appendix G
Hierarchical Model Project
Informal Survey
For the Language Arts Teacher**

Please respond to the following questions using the scale below:

<i>Strongly agree</i>	<i>Agree</i>	<i>Unsure</i>	<i>Disagree</i>	<i>Strongly disagree</i>
5	4	3	2	1

1. Did you find this activity useful for this class? _____
2. Would you like to do more activities like this with this class? _____
3. Do you think the students, as a class, found this activity useful? _____
4. Do you think the students found this assignment difficult? _____

Short Answer:

Do you think your students have a better understanding of how to develop a persuasive essay after this assignment, and why?

Would you consider doing this assignment again? If yes, please state your reasons, and if no, please state your reasons.

What would you suggest to improve on this project?
