

# Unit Overview

*Includes environment, work plan, standards; maturation, assessment, field tests*

*L551 Project 3*

*Ralph Quarles*

## ***“What a Pain!”: Sorting out drug claims for arthritis cures***

### **Student Audience**

North Daviess is a consolidated Junior-Senior High School located in Elnora, IN. The school serves about 30% of the population of Daviess County in southern Indiana<sup>1</sup>. This is a sparsely populated rural area, so student enrollment spans grades 7-12 yet only totals 474 students<sup>2</sup>. One media specialist serves all grades and class size averages 25 students for all grades. Taking advantage of this close environment, the specific focus for this project will be a pilot unit attempting to coordinate multilevel instruction in health for two classes: one at the 8<sup>th</sup> grade level and one composed of 10<sup>th</sup> graders. An advantage will be to allow most effective use of the limited resources of this small school, as it allows combining tasks for the media specialist and models possibilities for greater teamed collaboration that might otherwise be feasible when each individual grade has so few teaching sections from which to draw. Yet there is a potential implication of this setting which will require careful management. In planning a unit which will by definition double the demand for simultaneous use of the same area of resources, there is potential to stress the limited collection inherent in a small rural school. A wise media specialist can offset and even turn this implication into an advantage by using the higher use and focused timeframe to draw in community resources like local medical experts or university aids for this time period since they will be shared by two grades.

### **Information Inquiry Roles**

Both grades will be engaged in assessment of modern drugs and investigation of the claims of those involved in making or marketing pharmaceuticals. To allow focus and congruity in the assignments, the unit target for inquiry will be drugs related to treatment of arthritis. This ailment was chosen since it is relatively common and, according to the Arthritis Foundations list, offers focus on one area yet plenty of drugs to illustrate the difficulty of assessment and choice<sup>3</sup>.

Age appropriate criteria from matching areas of health instruction in the Indiana state standards will frame complementary assignments that allow interaction between the 8<sup>th</sup> and 10<sup>th</sup> grade teams involved in the inquiry. Teams of 10<sup>th</sup> graders will adopt the role of various drug industry stakeholders such as researchers, industry analysts, lobbyists, federal regulators, marketers, and end users. Preparation for their role will require advanced health science skills and associated information literacy skills as they conduct targeted research to gather facts and assess resources to discover underlying bias, community motivation or goals, and a body of facts and method likely to be adopted by their chosen segment's viewpoint in regard to various drugs. In addition, they will need to conduct their research collaboratively as a team and decide on distribution of both preparation and presentation tasks. Their product will be a live “play” where the 10<sup>th</sup> graders act out their roles in an interactive panel intended to persuade an audience for or against specific drug

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treatments. Their experience in the acting becomes also a group opportunity for reflection on relative merits of what they hear regarding pharmaceuticals, listening for “hidden agendas” versus fact, and the importance of solid research.

The 8<sup>th</sup> graders will be asked to take a less complex path of inquiry. Their task will be to discover facts about various drugs and to use Inspiration/ Kidspiration software to compile results in a way that allows visual contrast of drug properties, effectiveness, side effects, and use. Then, they will bring their charts as they form a tough informed audience for the 10th graders’ panel. The senior’s presentation becomes a reflective exercise for the 8<sup>th</sup> graders as they hear the 10th graders “sell” their various viewpoints on the drugs about which the 8<sup>th</sup> graders have learned. The end result is a discussion on who was the most reliable “witness” about arthritis drugs and a vivid lesson in hearing how various interest groups may skew facts to represent one point of view in treatment or services. Both groups benefit in this sort of “capstone” to their units with the example of how prior research can prepare a consumer to accurately access a medical sales pitch as the 8<sup>th</sup> graders have the opportunity to catch the 10th graders in inaccuracies or omissions of fact.

The following are the **Information Literacy Standards** <sup>4</sup> that will be addressed along with how they will be met in these 8<sup>th</sup> and 10th grade health units:

**Standard 1** The student who is information literate accesses information efficiently and effectively.

Indicator 4: Identifies a variety of potential sources of information. In order for both 8<sup>th</sup> and 10th graders to have success in research for either presentation of their arguments (10th) or assessment of what they hear (8<sup>th</sup>), both must use a wide variety of resources in order to gain or judge credibility. The 10th graders will be additionally challenged to seek out appropriate sites to help them adopt their chosen role and bias. The media specialist can take advantage of this coordinated unit to display information on health resources from Inspire or even on loan from Daviess County Hospital or EMS from their consumer education references.

Indicator 5: Develops and uses successful strategies for locating information.. The media specialist will assist students with devising successful search strategies in order that they will find the best resources for the assignment. Not only will this save them time and potential frustration, it will help them become better at performing research for similar assignments in the future.

This standard ties in directly to language in the health standards for each age group since accessing information efficiently and effectively will aid developing “skills to analyze the validity of health information, products, and services”. The coordinated exercise that caps this unit is of particular value in showing this union, since the 8<sup>th</sup> graders will be using results of their research to assess the medical claims of the 10<sup>th</sup> graders, who use their research to portray not only health product

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information but how different groups's viewpoint affects delivery of information in their media playacting. Standards 2, 3, and 9 tie in just as directly in this manner.

**Standard 2** The student who is information literate evaluates information critically and competently.

Indicator 1: Determines accuracy, relevance, and comprehensiveness.

Indicator 2: Distinguishes among fact, point of view, and opinion.

This standard will be primary for the 8<sup>th</sup> graders as they sit "in judgement" on the 10th graders' presentations and as they research to prepare with hard facts on arthritis drugs and the ailment itself.

**Standard 3** The student who is information literate uses information accurately and creatively.

This standard will be primary for the 10th graders as they prepare to take on stakeholder roles in the drug industry, especially since some will need to make the choice of weighing accurate against creative to make their point most persuasively!

Indicator 4: Produces and communicates information and ideas in appropriate formats. Each grade gets to approach this in different ways for their level of mastery. The 8<sup>th</sup> graders make their Inspiration maps for communicating comparisons of fact on charts with images. The 10th graders may use charts or other media in their argument but must decide on a whole package to sell their viewpoint.

**Standard 9** The student who contributes positively to the learning community and to society is information literate and participates effectively in groups to pursue and generate information

Indicator 1: Shares knowledge and information with others. This more advanced challenge will be taken on by the 10th graders, as they will be working in teams.

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## Applicable Indiana State Standards for Health Compared <sup>5</sup> (including maturation between 8<sup>th</sup> and 10<sup>th</sup> grade health instruction)

The following standards apply:

|                   | <b>8<sup>th</sup> Grade:</b>                                                                                                                                                                                                                                                                                                                                             | <b>10<sup>th</sup> Grade:</b>                                                                                                                                                                                                                                                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard 2</b> | Students will develop skills to analyze the validity of health information, products, and services; use sources of valid health information; explain how media influences the selection of health information, products, and services; locate health products and services; compare health products; and develop guidelines for the use of professional health services. | Students will develop sophisticated skills to examine arguments regarding the validity of health information, products, and services; describe the role of the government in related to the advertising of health products; evaluate health programs; identify trends in health care delivery; and describe individual rights and responsibilities related to health care. |
|                   | 8.2.1 Analyze the validity of health information and health products and services.                                                                                                                                                                                                                                                                                       | 10.2.1 Describe potential controversy regarding the validity of health information, products, and services.                                                                                                                                                                                                                                                                |
|                   | 8.2.2 Demonstrate the ability to utilize resources from home, school, and community that provide valid health information.                                                                                                                                                                                                                                               | 10.2.2 Describe the role of government agencies in regulating advertising claims related to health.                                                                                                                                                                                                                                                                        |
| <b>Standard 4</b> | Students will develop skills to analyze how the family, school, peers, and technology influence health and health behaviors; the influence of culture on health behaviors and the use of health services; and the influence of media on health behaviors.                                                                                                                | Students will develop sophisticated skills to analyze how the family, school, peers, community, media, and technology influence personal, family, and community health and health behaviors; the benefits and challenges of culture on health behaviors; and how policies and regulations influence health promotion and disease prevention.                               |
|                   | 8.4.3 Analyze how messages from media and other sources influence health behaviors.                                                                                                                                                                                                                                                                                      | 10.4.3 Research and evaluate the effect of media and other factors on personal, family, and community health and health behaviors.                                                                                                                                                                                                                                         |

Use of corresponding health standards is the linchpin for coordination of this health unit between the 8<sup>th</sup> and 10<sup>th</sup> grades. Yet, notice how these highlight the maturation expected in this area as students advance those two years. While both are expected to form credible research questions, pursue resources, and assess accuracy of those found, the older students are additionally expected to incorporate understanding of the influence and impact of underlying bias, controversy, and existing governance on available resources beyond just developing skill in locating and assessing information. The chief difference in depth is the expectation that the more senior students will mature in their awareness of extra levels of complexity in health topics caused by the interaction of culture, agendas, technology, trends, and even among the research teams themselves. In addition, the more senior students are expected here to progress from basic individual research toward a habit and skill in collaborative teaming at all stages of the process of inquiry.



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drawing shows, perhaps more than even the original questions (which synthesis can later refine), I would see this step of “sorting the puzzle pieces” to regroup findings, find patterns, and discern trends in results as key to effective research <sup>7</sup> . Of course, I must add a disclaimer of probably bias, as I know that ability and desire to conduct the process of synthesis with information is one of my own key transferable skills! <sup>8</sup>

For these units, the report for the 8<sup>th</sup> graders will be their Inspiration multimedia chart. For the 10<sup>th</sup> graders, it will be their live panel portrayal.

## Collaboration and Materials Overview

This unit will span one week in seven lessons in a shared timeline for both grade levels as follows that determines required materials discussed below:

Lesson1: Questioning and Planning

Lesson2: Gathering/Sorting/ Sifting 1

Lesson3: Gathering/Sorting/ Sifting 2

Lesson4: Synthesis and Evaluation; Time to stop and "take inventory"

Lesson5: Gathering/Sorting/ Sifting 3

Lesson6: Final Synthesis and Evaluation

Lesson7: Presentation and Reflection (Joint interplay of 8<sup>th</sup>/10<sup>th</sup> grades).

The media specialist and both teachers involved will maintain close collaboration in planning and execution of the units. Materials are coordinated to follow the timeline above. The media specialist will take the lead in providing a temporary “health research center” display to highlight available resources in the library and in the community related to the project. The teachers will be encouraged to post ongoing efforts by the students in their classrooms or as appropriate as additions to the library display. Classes meet at different times, so this allows the lessons for all in their respective units to be held in the library media center, where a Gates grant has ensured that there are sufficient Internet linked systems for each student to have their own workstation for use in research. The modules are online, and the instructors will take the lead to introduce each lesson, be available for consultation and assessment during each lesson, and partner with the media specialist to answer any emergent questions. For the joint lesson seven, both instructors and the media specialist will complete assessment charts noted below and meet for reflection after the project to compile results.

Teaching materials for each lesson will include:

1. Coordination plan with a consolidated timeline of activities for both grades, scheduled times for the media specialist and both teachers to meet, and suggested action item lists with division of responsibilities.

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2. Coordinated yet separate lesson plans for 8<sup>th</sup> and 10<sup>th</sup> grade instructors including primary and supplemental resources lists, assessment guides with examples and non-examples as applicable;
3. presentation materials in the form of URLs for online modules created using Module Maker<sup>9</sup> and copies of student handouts.

Learning materials provided to students for each lesson will include:

1. Coordinated yet separate lesson guides for 8<sup>th</sup> and 10<sup>th</sup> grade students including overview of the lesson, directions, and a starter resource list.
2. directional guides and handouts with examples as applicable
3. A timeline of activities for the unit overall with self-assessment checklists

**Note: For this project, I will provide materials only for Lesson 1 on Questioning and Planning for each grade.** These may be accessed from my project page or found directly in three files online as follows for grading:

1. 8<sup>th</sup> and 10<sup>th</sup> grade materials not herein or within presentation materials  
<http://ella.slis.indiana.edu/~quarles/551p3/quarles.p3.section2of2.pdf>
2. 8<sup>th</sup> grade presentation materials for Lesson 1  
<http://ella.slis.indiana.edu/~quarles/551p3/quarles.p3.lesson1.module8th.pdf>
3. 10<sup>th</sup> grade presentation materials for Lesson 1  
<http://ella.slis.indiana.edu/~quarles/551p3/quarles.p3.lesson1.module10th.pdf>

Additionally, the direct URL for this 8<sup>th</sup>/10<sup>th</sup> grade unit overview and support document is

<http://ella.slis.indiana.edu/~quarles/551p3/quarles.p3.section1of2.pdf>

## Feedback and Evaluation Overview.

Existing instruments created by others have been adapted for this unit<sup>9</sup>. Each grade will be provided a combined self and instructor assessment chart appropriate to their assigned product. Copies are included here:

### 8<sup>th</sup> and 10<sup>th</sup> grade assessment of information literacy mastery:

Student self-assessment:

[http://www.bcpl.net/~sullivan/modules/tips/rubrics\\_sec/stud\\_rubric.html](http://www.bcpl.net/~sullivan/modules/tips/rubrics_sec/stud_rubric.html)

Assessment by instructor

[http://www.bcpl.net/~sullivan/modules/tips/rubrics\\_sec/teach\\_rubric.html](http://www.bcpl.net/~sullivan/modules/tips/rubrics_sec/teach_rubric.html)

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## Assessment of health standard learning products:

(combined self and instructor assessment checklists)

8<sup>th</sup> grade graphic organizer assessment for Inspiration product:

[http://www.bcpl.net/~sullivan/modules/tips/rubrics\\_sec/graphic\\_org.html](http://www.bcpl.net/~sullivan/modules/tips/rubrics_sec/graphic_org.html)

10<sup>th</sup> grade group aspects of work:

[http://www.bcpl.net/~sullivan/modules/tips/rubrics\\_sec/group\\_wk.html](http://www.bcpl.net/~sullivan/modules/tips/rubrics_sec/group_wk.html)

10<sup>th</sup> grade persuasive argument in chosen role: modified version of

[http://www.bcpl.net/~sullivan/modules/tips/rubrics\\_sec/editorial.html](http://www.bcpl.net/~sullivan/modules/tips/rubrics_sec/editorial.html) )

## Persuasive Dialog in Character

| <i>Element</i>                                                                                            | Possible Points | Earned Assessment |         |
|-----------------------------------------------------------------------------------------------------------|-----------------|-------------------|---------|
|                                                                                                           |                 | Self              | Teacher |
| Knowledge of the issue and perspective chosen are shown by facts and information used.                    |                 |                   |         |
| The main ideas are clearly stated and presented in enough detail to support chosen position.              |                 |                   |         |
| Supporting details and information appropriate to the topic are accurate and consistent with chosen role. |                 |                   |         |
| The writer anticipates and responds convincingly to other viewpoints and questions.                       |                 |                   |         |
| The research goes beyond the scope of the classroom and basic “starter” references.                       |                 |                   |         |
| References to source information are given for added emphasis and effect.                                 |                 |                   |         |
| Tone of the discussion is rational and logical, with any heated debate staying on topic & not personal.   |                 |                   |         |
| The style and role is maintained throughout.                                                              |                 |                   |         |
| Presentation is well organized.                                                                           |                 |                   |         |
| Correct grammar is used throughout.                                                                       |                 |                   |         |
| The presentation is clearly audible and understandable throughout.                                        |                 |                   |         |
| <b>Total:</b>                                                                                             |                 |                   |         |

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## Field Test

Fortunately for review purposes, the author formally lived in Daviess County, the area served by the subject school. So, he decided to pursue review by persons exactly in the target population. This overview and the sample lesson were submitted for comment to a family whose children include R.S., a 18 year old recent graduate of N. Daviess, and E.S., who is currently in the 10<sup>th</sup> grade there. The mother is very involved at the school and has had previous experience in teaching high school age students. Substantive comments include:

### **E.S, 10<sup>th</sup> grader:**

1. "Cool.....looks like more fun that what we did in health this year!"
2. "I like looking up stuff on the internet"
3. "We've never used that Inspiration thing. Katie said she used it in Ms. X's class."
4. "Granny Sims had arthritis real bad."

### **R.S., college freshman at Vincennes, recent grad from NDHS**

1. "They have that new lab now, so this would work."
2. "We never did that much with the librarian when I was there. Mr. Dart knew more about computers than she did"
3. "I like the idea of getting to choose a role to be and looking up things to support that."
4. "We never used checklists like this to grade ourselves so I don't know if the classes would understand that without help."

### **S.S., mother of R & E**

1. "It would be good to get them to relate what they learn to something real."
2. "This looks interesting, but sounds like a lot of work for the librarian and the teachers!"
3. "It's only been the last few years (because of I-Step I think) that they try to tie lessons to the standards like this. You should show this to some of them down there. I'll bet they'd use it."

As a result of the feedback, I added the Inspiration site tips to the instructor resources since it sounds like not all would be familiar with it, and added an alternate choice of MS PowerPoint, which RS says is in all the labs. I also added more detail to the timelines in hopes of showing that the effort is achievable and as an aid to scheduling. Lastly, rather than simply link to the assessments as I have done in this overview, I would include a paragraph of explanation and links on the supplemental list of references to a site or two that explain self assessment. The most positive aspect of the field test is that response indicates that the approach would be motivating to the students, relevant to their world, and well accepted.

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## Resources and References

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