Inquiry for Deep Learning

Course

Concept-based Inquiry [9:12]

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About

Thinking about inquiry as a conceptual investigation can help frame inquiry so it encourages students to arrive at insights or discoveries to stretch them beyond gathering facts.

Transcript

Often, when we think of inquiry, we think about fact-finding in something of a content-based environment, but we're going to stretch our thinking a little bit to think about inquiry as a conceptual investigation. This distinction can help frame inquiry so it encourages young inquirers to arrive at insights or discoveries to stretch them beyond gathering some content or gathering some facts. Let's look at some examples to think about how that can work. So, consider the typical middle school report on countries in Latin America, let's say. So what questions will students ask if they're inquiring about a country? Well, they want to know what's the population, what's the capital, what's the flag look like, what's the predominant religion, what are their primary exports, how many people are living in poverty there, what's the condition of education in the country.

Now, let's reframe that assignment around a concept. We're going to take the concept of economic development. So our big essential question for this task then becomes what must this country do to become a strong, global economy? Now, students will still gather facts about education, about poverty levels, about economic drivers, but now, they have to analyze those to determine what changes will be necessary to advance the economy of that country. Now, instead of gathering facts about the country, young researchers are gathering facts, but then applying their findings to propose solutions. They're gaining insight into the concept of economic development. What's the effect of this reframing? Well, the facts about a country may be helpful if they were going to travel there, but the concept of economic development can be transferred to other settings, even their own city or their own state. And let's face it; the concept of economic development can be more interesting than gathering discreet facts about a country. Because the student has to integrate facts to arrive at the implications for economic development, to arrive at a solution, to arrive at a proposal for how this country might move forward, they have a more challenging task.

So, what does this mean for the librarian? It means for the librarian having a conversation with a classroom teacher about that fact-based assignment and saying can we ramp this assignment up a bit by laying on it some concept that comes out of your discipline. And in the case that we just talked about, that concept could be economic development and students could understand more about economic systems in a social studies context.

Let's think about another example. Animal reports. We've all seen them. We've all participated in them. What questions do students ask when they have animal reports? Well, they want to know where the animal lives, what does it eat, how does it care for its young. They might ask who are its enemies. These are the kinds of questions that students will think of if someone says write a report about an animal. Now, can we reframe that assignment around a concept? Well, we could take a concept of migration, or we could take a concept of climate change. Let's talk about migration for starters. We might be able to merge those two concepts, in fact. So we limit our students to migratory animals around the concept of migration. They are still going to have to gather those basic facts about animals, but once they gather those, they will need to ask some bigger questions: Why does this animal migrate? How does it know where to go? How does it decide when to go? What could be the effects of climate change on its migratory behavior?

As students compare their findings about various animals, their examples enhance and deepen their understanding of migration behavior. Indeed, it might deepen their understanding about the effects of climate change. In the learning supports, there are some additional examples of this nudging or shifting from a content-based topic to a concept-based level of inquiry. A simple conversation with a teacher can stretch the inquiry of students tremendously simply by thinking about concepts as well as content. In an inquiry approach, it is after students gather their background knowledge that they know enough to begin to inquire deeply about a subject. So what if migrating geese stopped migrating southward because of climate change? What if they remained in their more northerly habitats? How would that affect the geese? How would the change affect the destination habitat that they would have gone to? How would it affect the place they're staying? Those are interesting questions.

Let's step back a moment and talk about what we mean by a concept. So concepts have some powerful characteristics. For example, concepts have universality. Let's take

an example of the pilgrims. If students studied the pilgrims who came to America in the 1600s, they would take away not only paper hats and similar art projects, but they would take away factual knowledge about the 1600s. If they study the pilgrims as one example of immigrants along with the Irish, the Swedish, the Chinese, the Mexicans, the Somalis, the Syrians, the conceptual lens of migration affords the opportunity for them to see universality in the immigrant experience. The ensuing insights that could emerge from that are very powerful. What new attitudes and understandings about migrant groups might arise that would not have arisen if they were limited to studying facts about the pilgrims of the 1600s? Universality--an important characteristic of concepts.

Concepts are also timeless, they go across ages. In social studies for example, when students examine a concept, rather than a specific event in history, the lessons of history become clearer. Consider a concept like revolution. In your own mind, think of the different examples of revolution across history. What if we investigated them and made comparisons around that concept of revolution rather than studying only the American Revolution in isolation, or the French Revolution in isolation, and so on? Similarly, we could think about a concept like colonialism or leadership as lenses for understanding history across eras and across nations. Timelessness; another powerful characteristic of concepts.

Concepts are represented by different examples that share common attributes. Let's take the concept of adaptation for example. Students might consider examples of adaptation like how the deer has adapted to human settlement, or how the polar bear has adapted to warming waters. By comparing various examples, they can arrive at new insights and understandings about adaptation and apply those concepts of adaptation to other species and to other situations that they had not considered before. Again, moving away from looking at isolated examples to comparisons across many examples under the umbrella of a concept can be very powerful to expanding students' understanding, to deepening their inquiry, and helping them understand their world in a more significant and substantial way. So, let me just toss out a few examples of concepts. Change, system, culture, organism, migration, interdependence, justice, scarcity.

We can reframe low-level fact-finding into conceptual frames and easily raise the level of inquiry. The result will be tasks that pique curiosity and that urge students to do much more analytical thinking. Librarians can work with teachers to transition content-oriented assignments to concept-oriented tasks. The content-oriented project on states can transition to a concept-oriented project on immigration. The content-oriented project on insects can translate to a concept-oriented project on life cycles. Conceptual thinking can underpin inquiry for deep learning.

Activities

Can You Shift from Content to Concept?

Context:

Inquiry requires a shift from content projects, such as a biography project or a biome report, to conceptual projects, where more complex questions are posed and researched. The shift really starts with the librarian or teacher in the project design. Questions like "what evidence," "what if," "what effect," and "what could," applied to content project, can help drive the shift. (More information on questions is provided in Lesson 5). As further examples, "the content-oriented project on states can transition to a concept-oriented project on immigration. The content-oriented project on insects can translate to a concept-oriented project on life cycles."

Instructions:

To accompany this lesson and see helpful examples of the transition from content to concept, read Donham's "Deep Learning through Concept-Based Inquiry," provided in the Resources below.

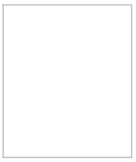
Examine the tables in the article carefully: Table 1. Conceptual Lens Yields Deeper Questions and Table 2. Shift from Topic to Concept.

Apply one (or more) current "content" projects at your school to these charts to create the framework of a "concept" project. It's ok if the topics are similar to the examples in the article or lesson; it will be fruitful to think through this transition with lessons familiar to you.

Table 1. Conceptual lens yields deeper questions (blank)		
Topic	—>	Concept
	<—	

Table 2.Shift from topic to concept (blank)				
Topic	Topical Questions	—>	Concept	Conceptual Questions
		<—		

Resources:



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Article

ADDITIONAL RESOURCES

Annotated Bibliography.

MLA CITATION

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