Using Content and Tasks to Address Grammar More Effectively
by Sara Gramley and Heather Mehrtens

Traditional grammar instruction strongly focuses on rules and practice. However, cognitive science shows that this method is not the best means to acquire language. This article provides a rationale for using content-based instruction (CBI) and task-based instruction (TBI) to address grammar in a language classroom and demonstrates how to address grammar within language lessons that follow CBI and TBI principles.

Principles of Traditional vs Content- and Task-Based Instruction

In a traditional grammar lesson, the teacher introduces a structure by explaining rules and providing examples; students practice the rules through guided exercises; they are then expected to produce the structure in writing and speech. However, many have questioned the efficacy of this approach. In fact, research confirms that this "present, practice, produce" method is not the best way to develop language skills as it promotes explicit over implicit knowledge (Ellis, 1995, 2003). Moreover, cognitive science shows there is a clear limit to how much information students can retain from such instruction (Ellis, 2003; Kennedy, 2006). CBI, in which language is taught in tandem with meaningful topics, and TBI, in which students must use the target language to collaborate and complete tasks with specific outcomes, are more effective alternatives.

CBI is based on several communicative principles. Larsen-Freeman and Anderson (2011) explain that in this approach to language teaching, communication is both the means to and the end goal of learning: Students simultaneously learn language and content, using each to learn the other; language learning is viewed as a social process, requiring interaction among the learners; and errors are addressed through recycling language and content, self-correction, peer review, and teacher feedback (pp. 139–142). Unlike the traditional approach in which a grammatical structure is both the topic and the objective of a lesson, CBI treats grammar as the means to meaningful communication.

Sequence Lessons by Topic

For students, learning grammar this way has cognitive advantages. Kennedy (2006) asserts, "Emotions drive attention. Attention drives learning and memory" (p. 479). This simple observation astutely describes what we, as learners, all know: We are more likely to engage with and remember a topic that resonates with us more than an arbitrary rule. For instructors, teaching grammar through CBI means rethinking the way in which we organize our syllabi and lessons. Instead of presenting students with a unit of grammatical structures, we should introduce a unit sequenced by topics. The grammar will, of course, still be part of the lesson and sequenced in a meaningful way; the difference is that the students will view the unit with regard to the ideas, not the underlying structures.

Provide Opportunities for Real-Life Language

In addition to teaching grammar through engaging content, TBI provides another effective means for grammar instruction. In TBI, students engage in a variety of tasks with clear outcomes; they work together to accomplish tasks and solve problems. Instead of being front and center, the teacher provides the initial input for a lesson and then constantly evaluates students as they complete tasks with respect to task outcomes and language use (Larsen-Freeman & Anderson, 2011, p. 156–157). In contrast to traditional grammar instruction that focuses heavily on rules, TBI treats grammatical structures as the tools required to complete a job. Rather than doing repetitive exercises unreflective of natural language use, students practice grammatical structures by using them to collaborate and receive focused feedback on their own usage. This interaction is a key reason why TBI is so effective; that is, it forces students to use real-life language.

Encourage Critical Thinking

Another important feature of TBI is that it requires students to think critically. Kennedy (2006) explains, "As a result of participating in small-group activities that promote practice by doing, and verbally working through meaningful problems, students are able to retain 90% of newly acquired knowledge" (p. 479). These results suggest that retention is significantly improved when the brain is fully engaged; in other words, if students are asked to use their minds with the target language, they are more likely to remember the vocabulary and the grammatical structures that they learned, such as by analyzing a text or debating with a partner on an interesting issue.

Implementing Content- and Task-Based Instruction

To implement these methods successfully, planning is critical.

Choosing Materials

A teacher must consider proficiency level when selecting texts and audio so that they suit the students' needs. An effective source will be one that presents the chosen topic at a level comprehensible for the majority of the class and includes multiple examples of the chosen grammatical structure. It is often necessary to review several sources before finding those that satisfy both content and language requirements. Once appropriate sources are chosen, examples must be chosen purposefully. Choosing sentences or clips in which the structure is apparent and clear will make it easier for students to understand the structures and start forming a basis for the rules surrounding its usage. Once this understanding is established, more complicated or irregular examples can be analyzed.

Reversing the Classroom Model

A salient feature of teaching this way, especially in comparison to traditional grammar instruction, is that the order of the lesson is reversed: The content and tasks come before the language focus. Instead of learning a rule and then practicing it, students are exposed to examples of grammatical structures in context, given tasks to perform with these grammatical structures, and then asked to analyze the structures and patterns they observe. The teacher supports students in making these observations with guided questioning and provides corrections as needed. Students are very active in the learning process and thus pushed to find and to

articulate patterns in usage, as opposed to passively listening to a teacher. Additionally, critical thinking is activated, benefiting both the learning and retention of grammatical structures.

These opportunities to think critically about issues in the target language and to connect emotionally with them are what distinguish TBI and CBI from traditional instruction. Marzano, Pickering, and Heflebower (2011) articulate the significance of this difference:

> When students are asked merely to regurgitate information in a repetitive fashion, they will not see the relevance of the information they have learned….When students are challenged to use the information they have learned to solve problems, make decisions, conduct investigations, and create hypotheses regarding real-world issues, they are much more likely to see what they are learning as important. (p. 14)

Language learners are not all linguists at heart; it is much more likely that they will become invested in topics that are relevant to their lives, such as genetically engineered food or political elections than adjective clauses or demonstrative pronouns. Shifting the traditional language class into content- and task-based classes allows the students to learn the structures they need to communicate successfully. It simply turns an explicit grammar lesson into a stealthy one.

Sample Unit

The following set of articles and materials serve as an example content- and task-based unit for intermediate English language learners. First, we chose the topic of genetic engineering; after reading multiple articles on the topic, we selected three. We sequenced them according to length and difficulty, beginning with the shortest and most direct text.

The lessons address pronouns; final –s; and the prepositions *in*, *on*, *at*. These are not the only structures that could be addressed but were chosen purposefully as they are common sources of errors among learners. Each structure is used repeatedly in its respective text and is appropriate for the target proficiency level.

Each lesson moves through a progression of tasks with specified outcomes and interaction: partner, small group, whole class. The students begin with vocabulary, because words are the building blocks of understanding ideas. From there, they check their comprehension of the text's main ideas. Once they have a clear and common understanding of the ideas in the text, they are ready for higher order thinking, which takes place in a discussion. After all of these tasks, when they have not only an understanding of the content but also opinions about it, they are ready to analyze the grammatical structures.

Topic: Genetic Engineering

> **Lesson 1**
> *Content*: "Dino Drumsticks"
> *Language focus*: Pronouns
> Worksheet (.docx)

Lesson 2
Content: "UF Creates Trees With Enhanced Resistance to Greening"
Language focus: Final –s (plurality, possession, tense)
Worksheet (.docx)

Lesson 3
Content: "Around the Country, Organic Farmers Are Pushing for 'GE-Free' Zones"
Language focus: Prepositions (*in*, *on*, *at*)
Worksheet (.docx)

The methods discussed in this article are supported by research and effective in practice. In our experience, students are more engaged in using English and attentive to its structures when learning them in the context of an interesting topic or task. It is helpful to remember that language cannot be separated from content; by addressing language and content in concert, grammar is taught and learned more effectively.

References

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Larsen-Freeman, D., & Anderson, M. (2011). *Techniques and principles in language teaching*. Oxford, United Kingdom: Oxford University Press.

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Sample Unit Content Sources

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Dino Drumsticks: Scientists Grow Dinosaur Legs on Chicken Embryos for the First Time

Read and annotate the article. Then complete the following tasks to support your understanding of ideas and language from the text.

Vocabulary
With a partner, define the key terms below and discuss their connection to the article's topic.

researchers	experiment	isolate	gene	avian dinosaur
dinosaurs	breakthrough	conduct	trait	genetic modification
chicken	evolution	survive	embryo	evolutionary change

Comprehension
With a partner, check your understanding of information presented in the article by answering the following questions.

1. What descendants of dinosaurs are still alive today?
2. Which institution recently studied this evolutionary connection?
3. In what year and in what journal was their study published?
4. What animal did they use to study the evolution of dinosaurs?
5. Which part of the animal was the focus of their study?
6. How did they manipulate the traits of this body part?
7. Was their experiment successful?
8. Will this ancestral trait return as a result of the experiment?

Discussion
In a small group, discuss the following questions to examine, evaluate, and expand upon key ideas presented in the article.

1. In this study, researchers manipulated the genes of chickens. In what other ways is genetic modification occurring today?

2. What reactions have GM research and GM products received in the US?

3. What considerations should be made when modifying the genes of a plant or an animal? What concerns may arise?

Grammatical Analysis
Review the following sentences from "Dino Drumsticks: Scientists Grow Dinosaur Legs on Chicken Embryos for the First Time." With a partner, determine to what or to whom each underlined word refers.

1. A group of researchers from Universidad de Chile have made a huge breakthrough in showing the evolutionary changes that occurred from dinosaur to bird by making genetic modifications on chicken embryos. Simply put, they are growing a dinosaur leg, which is a first in 65 million years.

2. Previous experiments on chickens have already been conducted to bring out their dormant dinosaur traits.

3. In 2015, the team from Chile was able to make their chicken embryos grow dinosaur-like feet. This new study, which was published in Evolution, tried to isolate a maturation gene called IHH, or Indian Hedgehog, [and] allowed them to make the chicken's fibula grow as long as its tibia.

4. "The experiments are focused on single traits to test specific hypotheses. Not only do we know a great deal about bird development, but also about the dinosaur-bird transition, which is well-documented by the fossil record. This leads naturally to hypotheses on the evolution of development, that can be explored in the lab," said one of the team members, Alexander Vargas.

UF Creates Trees With Enhanced Resistance to Greening

Read and annotate the article. Then complete the tasks that follow to support your understanding of ideas and language from the text.

Vocabulary

With a partner, define the key terms below and discuss their connection to the article's topic.

citrus	resistance	defend	periodic	destructive
crop	enhanced	industry	strategy	institution
resist	organism	bacteria	unsuitable	commercial

Comprehension

With a partner, check your understanding of information presented in the article by answering the following questions.

1. What type of tree was the focus of this article?
2. What is meaning of "greening" within the context of the article?
3. What industry is most affected by "greening"?
4. Which institution recently published research on these trees?
5. How did this institution genetically modify these trees?
6. What were their reasons for modifying the genes of the trees?
7. Are these genetically modified trees available to the public?
8. What do the following abbreviations from the article stand for?
   UF, CREC, SAR, DNA, HLB

Discussion

In a small group, discuss the following questions to examine, evaluate, and expand upon key ideas presented in the article.

1. What are the potential implications of this research for citrus producers?
2. What are the potential implications of this research for citrus consumers?

Grammatical Analysis: –s suffix

With a partner, review the following sentences from "UF Creates Trees with Enhanced Resistance to Greening." Identify all words with an –s suffix. Discuss what this ending contributes to the meaning of the word.

1. Improvement of citrus through genetic engineering remains the fastest method for improvement of existing citrus cultivars and has been a key component in the University of Florida's genetic improvement strategy.

2. Citrus greening threatens to destroy Florida's $10.7 billion citrus industry.

3. The disease starves the tree of nutrients, damages its roots and the tree produces fruits that are green and misshapen, unsuitable for sale as fresh fruit or, for the most part, juice.

4. Grosser and Dutt's research team used sweet orange cultivars Hamlin and Valencia and created plants that defend themselves against pathogens utilizing a process called systemic acquired resistance, or SAR.

5. These trees were evaluated every six months for two years for the presence of greening.

6. Neither of these lines declined in health, and both showed continued growth with periodic flushes.

7. In addition, researchers must 'stack' this gene with another transgene that provides resistance to the greening bacterium by a completely different mechanism.

8. The proceeds help to pay for citrus greening research at the University of Florida's Citrus Research and Education Center and other institutions.

Plurality: –s indicates number	Possession: –s indicates ownership	Tense: –s indicates 3rd person, present

Around the Country, Organic Farmers Are Pushing for "GE-Free" Zones

Read and annotate the article. Then complete the tasks that follow to support your understanding of ideas and language from the text.

Vocabulary
With a partner, define the following key terms.

advocacy	coexistence	concern	contamination	cultivation
export	impact	labeling	ordinance	pollen
proponent	restriction	skeptical	stance	transparent

Comprehension
With a partner, answer the following questions.

1. Why do scientists often modify GM crops?
2. Why are some worried about GMOs?
3. Why are GE-free zones desired?
4. How are non-GE crops contaminated by GE crops?
5. What are some unintended consequences of GE contamination?
6. Who bears most of the "economic burden" for GE contamination?
7. Why may GE-free zones be necessary?

Discussion
In a small group, discuss the following questions.

1. In your view, what are the pros and the cons of GE-free zones?

2. To what degree are GE-free zones realistic? Explain.

3. According to the article, shortly after passing a GE-free zone ordinance in Jackson County, "the state of Oregon passed an emergency bill barring any other counties from regulating GE agriculture" (page 3). What are some reasons why Oregon may have passed this measure?

4. At the end of the article, Kuzma says "...I think it's time we had a kind of national, more public conversation about how we want to approach genetic engineering from a societal context, and to have more open and transparent discussion about the issue in which many types of people can participate" (page 4). How, where, and with whom might these discussions take place?

Grammatical Analysis: *In, On, At*
In small groups, review the sentences from "Around the Country, Organic Farmers Are Pushing for "GE-Free" Zones." Then, fill in each blank with either *in*, *on*, or *at*. Choose the best preposition for each blank. When you finish, check with the original text.

1. It's at least the eighth county ___ the country to create such an ordinance, and efforts are springing up to pass similar measures ____ other places (paragraph 1).

2. The Jackson County designation was made final ____ Dec. 22… (paragraph 2)

3. The ordinance was originally passed ____ May 2014 by the voters of Jackson County... (paragraph 2)

4. The challenge was rejected by a federal judge ____ May, and a court settlement – which upholds the GE-free zone, but allows the alfalfa farmers to keep their crop for the remainder of its useful life – was finally approved ____ December" (paragraph 2).

5. Transgenic contamination is "the mixing of unwanted, unintentional GE content with traditional and/or organic crops or wild plants," according to George Kimbrell, senior attorney ____ the Center for Food Safety… (paragraph 5)

6. A 2008 report from the International Federation of Organic Agriculture Movements noted that contamination via cross-pollination has resulted in losses for organic farmers ____ Europe, Canada, the U.S., Korea, Brazil and elsewhere… (paragraph 10).

7. In general, however, there have been few large-scale studies of economic losses due to this type of contamination, said Jennifer Kuzma, professor and director of the Genetic Engineering and Society Center ____ North Carolina State University. (paragraph 11)

8. In addition to Jackson County, five counties ____ California, and at least one ____ Washington, Hawaii and another ____ Oregon, have enacted similar ordinances… (paragraph 17).

IN	**ON**	**AT**
When to use:	When to use:	When to use: