Differentiated Visual Tools
Q & A

Differentiated Visual Tools consists of a series of software programs, each providing (a) collections of discipline-specific, developmentally-sequenced interactive visual tools (i.e., users can type their own information onto the visual and save them as Word documents) individually designed to address specific Core Language Arts / College-Career Readiness Standards for reading literature and information text, expository, opinion, and narrative writing, as well as vocabulary, and (b) highly robust teacher-assisted and peer-assisted instructional routines for using them. Color visual tools are designed for Smart Boards, Promethium Boards, or LCD projectors. Interactive blackline masters are designed for printing hardcopies. These are digital files and thus may be emailed to students or parents, used as Wikis, and/or saved to students' electronic portfolios.

Below are answers to some of the most commonly asked questions about *Differentiated Visual Tools.*

What are the core underpinnings of *Differentiated Visual Tools*?

The *Differentiated Visual Tools* model is built around five key notions:

- Skill and knowledge development can be enhanced without compromising the integrity of the curriculum by reducing the cognitive load of both teachers and students;

- As curriculum becomes more complex, clarity of instruction becomes more critical.

- The Core Language Arts / College and Career Readiness Standards are developmentally sequenced, so instructional resources should be scaffolded accordingly.

- Teachers' opportunity and energy for planning is extremely limited, so instructional resources should expedite the planning process as much as possible.

- Learning is maximized when students are engaged, and instruction is explicit, developmentally-appropriate, and scaffolded; use of visual and semantic prompts are the two most powerful tools teachers can employ to facilitate learning.

What are *Differentiated Visual Tools* and what do they have to do with teaching content-literacy addressed by Core and College / Career Readiness standards?

The Common Core Standards for Language Arts / College / Career Ready Standards for reading literature, information text, and writing (K-5) and reading literature, history, science, and other technical subjects (6-12) address a series of thinking / information processing skills that are arranged developmentally (e.g., become increasingly more complex). The strands are:

* Asking & Answering Questions / Drawing Inferences / Distinguishing between explicit information provided & reader's inferences).

* Summarizing key ideas, central messages & themes / identifying supporting details

* Making comparisons

* Identifying and explaining relationships

* Analyzing & using text features, structure

* Analyzing author's purpose, author's point-of-view, as well as point of views of characters, or figures within an historical account.

* Analyzing and evaluating the soundness of the author's reasoning

* Expository / Descriptive writing

* Expressing an Opinion / Persuasive writing

* Explaining a sequence / Narrative writing

* Vocabulary acquisition & definition inferences based on context

Traditional graphic organizers such as webs and Venn diagrams can be effective tools when addressing relatively simple Core /CCR standards, but as these standards become more complex, their utility drops substantially, in part, due to their generic "one size fits all" nature and the complexity (multi-dimensional nature) of the standard.

Differentiated Visual Tools (DVTs) are graphic organizer-like devices that employ both visual features and embedded semantic prompts that are individually created to teach specific standards.

The semantic prompts are designed to cue students to employ various content-literacy (information processing) strategies and to cue students to focus on specific "essential understandings" of topics. Features of DVTs include:

• Different DVTS for different Core /CCR standards

• Developmentally sequenced so that as the standards become more complex, so do the corresponding DVTs.

• Discipline-specific

• Designed for implementing developmentally-appropriate differentiated instruction

In short, the DVTs are designed to structure for success primarily by *reducing students' cognitive loads* when processing complex information. The DVTs provide a structure that enables students to SEE thinking processes involved while engaging in information processing associated with the complex standards.

Likewise, DVTs are designed to reduce the *cognitive load* associated with planning and delivering developmentally appropriate- differentiated instruction because they enable teachers to SEE how to address complex standards in a straightforward, relatively simple way. Because the DVTs within a strand of standards are developmentally sequenced, they allow teachers to differentiate instruction, based on the developmental needs of different students in the classroom by using less complex DVTs for some students, and more sophisticated ones for other students, when teaching the same standard.

How do *Differentiated Visual Tools* address content subject-matter standards?

The DVTs differ in part because they are *discipline-specific* and the 'content' features of them center on "essential understandings" (EUs) associated with each of a set of high-frequency topics (history: famous person or group, issue/conflict, era/movement, etc.) in each discipline

(science, literature, etc.). Thus, some of the embedded prompts in a DVT designed for teaching about a famous person focus on specific EUs associated with <u>any</u> famous person (e.g., person's personal qualities, critical decisions the person made, factors influencing those decisions, actions taken as a result of the decisions, impact of those actions). Likewise, a DVT for teaching about an era or movement uses different EU prompts germane to that high frequency topic. *These prompts serve to dramatically focus instruction on critical knowledge*. They bring a LOT of clarity to students about a topic.

What is the difference between *Differentiated Visual Tools* and the *Strategic Instruction Model - Content Enhancement Routines* developed at KU Center for Research on Learning?

Dr. Ellis is one of the co-authors of the *Strategic Instruction Model* (SIM) associated with the University of Kansas Center for Research on Learning. DVTs are best viewed as tools that are highly complimentary to the SIM *Content Enhancement* (CE) routines, and should not be viewed from an "either/or" perspective.

DVTs differ from the SIM-CE in that the latter features use of highly robust visual devices designed to maximize targeted areas of content-area instruction (e.g., comparing concepts). The SIM-CE visuals are <u>universal</u> in the sense that the same tool can be used when teaching literature, science, or history. Likewise, the SIM-CE visuals are universal in the sense of "one-size" fits all." For example, the same SIM-CE Comparison Routine visual can be used effectively with 7th and 12th graders alike.

In contrast, DVTs were designed to target individual, specific CC/CCS standards and are <u>discipline-specific</u> as well as developmentally sequenced in the tradition of scaffolding complexity. For example, some forms of comparison are more complex than others. Thus DVTs include relatively simple comparison visuals as well as much more sophisticated versions for more sophisticated learners who share the same classroom, and they include prompts that focus on essential understandings of disciplines. Very important to understand is that DVTs can be used as a supplement (not a substitute!) if teachers are already implementing SIM-Content Enhancement.

How are *Differentiated Visual Tools* designed to reduce cognitive load associated with teacher planning?

The DVTs are accessed via a digital platform that essentially recommends specific DVTs for specific standards, and these are also accompanied by partially completed interactive lesson plans that integrate assessments / rubrics that target the corresponding College/Career Readiness Standard / SAT assessment items.

These are accompanied by a collection of specific instructional routines, grouped into:
BEGINNING (routines for using DVTS at the beginning of a lesson to do things like review prior learning or pre-teach vocabulary)

DURING (routines for using the DVTS when providing explicit content-literacy and content instruction (e.g., how to use DVTs in a guided reading lesson)

AFTER (routines for using DVTS for reflective reviews, essential questions, etc.)

All of the above routines are sub-grouped into two categories:

*Teacher-assisted Routines
* Peer-assisted Routines

Instructions for implementing these routines come in two forms:
- *Quick-start Guides* (<u>very brief</u> instructions for how to use a specific routine) designed for teachers who are already familiar with an instructional routine (e.g., Pair*Share) but need a little guidance on how to apply the routine when using a DVT).

- *Step-by-Step Guides* (these read like a cookbook recipes) are designed for more novice teachers, these range 1-2 pages in length, and provide straightforward how-to-do-it instructions for implementing a routine.

These interactive lesson planners also use embedded prompts designed to allow teachers to make instructional decisions that involve use of DVTs quickly with minimal effort.

Perhaps most importantly, the embedded prompts on the DVTs can dramatically reduce teacher's cognitive load when planning because they do not have to think of them themselves. This is especially important for novice teachers. The quality of the information that becomes noted on the visuals dramatically increased when the prompts are embedded on the visuals.

How do I get the *Differentiated Visual Tools* program? What does a single-user license cover?

Differentiated Visual Tools is not a single program, but rather a series of software programs, each designed for teaching standards associated with specific grade levels (see descriptions below).

Immediate downloads (www.GraphicOrganizers.com) of the DVT programs are available for single users. A single-user license permits the purchaser (teacher) to use all of the resources in the program with students who are on the teacher's official role. The teacher is permitted to load the software on both his/her personal computer and computers in his/her assigned classroom, provided that the computer is not shared with other teachers.

Are multi-user licenses available? Can the software be uploaded to our school's server?

A multi-user license is required to load the software on a school's intranet (server) and is required for computer labs.

Discounted pricing of multi-user licenses is based on the **number of teachers** who will be accessing the software. Please call for a quote (205-394-5512) or email (visualtools@MakesSenseStrategies.com.

My school is going paperless. Can my students access the DVT program I purchased?

Students who are on the teacher's official role are permitted to access and use via computers the DVT program. Likewise, individual DVT files may be emailed and/or electronically shared among students who are on the teacher's official role.

Currently under development are DVTs for tablets (iPads, etc.). These will be available (free) to teachers who have already purchased the computer-based software.

If I purchase one of the *Differentiated Visual Tools* programs, can I share the material with other teachers and friends?

You may, however, copy and distribute any of the designated "free samples" that can be downloaded from www.MakesSenseStrategies.com. These are pdf files, and thus may be emailed to other teachers or students.

While you are welcome to demonstrate materials from the DVT software programs, users are not permitted to provide print or digital copies of any of the DVT material to non-licensed individuals or their students.

I'm a professional developer and work with several schools and districts. Am I allowed to provide *Differentiated Visual Tools* PD? What resources are available to me?

Approved (by Dr. Ellis) DVT professional developers are provided a range PD resources, including presentations, handouts, and related materials for use when providing pre-service or inservice professional development (workshops) with the provision that they agree to the following terms and limitations:

- The professional developer indemnifies Edwin S. Ellis and MakesSenseStrategic.com from any legal disputes that may arise as a result of the DVT training activity.

- DVT professional developers may **NOT** distribute copies of the DVT software programs or any of their contents to anyone without written permission from the author.

- DVT professional developers **MAY…**

   o Distribute copies Digital or hard copies of sample Visual Tools that are specifically labeled as "**Free samples.**" Each of these free samples contains a statement by the author granting permission to distribute.

   o Distribute digital or hardcopies of PPt presentation handouts copyrighted by Edwin S. Ellis. Handouts may NOT be modified without written permission from the author.

   o Contract for, collect and keep any and all honorarium paid by the attendees or contracting agency receiving the workshop in the DVT program, *provided that the professional developer includes a demonstration of the DVT software program during the workshop.* There is no expectation that the revenue from the workshop services will be shared with the authors of the program, nor will the persons conducting the workshop be paid an honorarium by the author.

How can my school receive DVT professional development?

DVT Professional development activities are patterned after the *Learning Forward* Standards for Professional Learning. Our audiences are most frequently mentor teachers, coaches, and other professional developers. Initially, most audiences just want to know more about the *Differentiated Visual Tools* and instructional routines and are less concerned with "implementation fidelity", but fidelity is important! If follow-up PD is provided, then the focus tends to shift toward customized PD designed to seamlessly integrate with a school or district's professional development plan, such as supporting on-going professional development communities and fidelity implementation. We provide several forms of support, including a range of tools that can be used to support step-wise goal setting and strategic plans.

Significant discounts in the DVT software is typically provided when multi-user license are purchased in conjunction with PD.

We recognize that PD can be expensive and difficult to attain by schools in smaller districts, so we have an on-going commitment to post downloadable DVT presentations at www.MakesSenseStratgies.com and to develop and post videos of the presentations.

Please contact Linda Ellis for information about DVT professional developers who may be in your area or to arrange professional development with Dr. Ellis.

Linda Ellis (205) 394-5514
VisualTools@MakesSenseStrategies.com

Can you provide webinars?

Yes.

I'm a pre-service teacher-educator. How can the DVTs be integrated into my courses?

We are committed to supporting pre-service teacher-education. When requested, we provide college teacher-education instructors with "*coupon codes*" that allow their education students to download the software at significant discounts.

We also provide instructors with sample course assignments, grading rubrics, suggested activities, presentations, webinars, and other DVT-teacher education resources .