CTE | Career & Technical Education RESEARCH NETWORK

Module 6: How to Communicate About Your CTE Program Using Research

Facilitator's Guide

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Contents

Overview

This module is part of a series of six practitioner training modules developed as part of the CTE Research Network Lead. The six modules are:

Module 1: Understanding CTE Data and Why It Matters

Module 2: Using Data and Research to Improve CTE Programs

Module 3: CTE Program Evaluation: Why It Matters to Practitioners

Module 4: Using State Data to Partner With Researchers

Module 5: Using Research to Design Your CTE Program for Equity

Module 6: How to Communicate About Your CTE Program Using Research

The work of the CTE Research Network Lead is supported by the Institute of Education Sciences at the U.S. Department of Education with funds provided under the *Carl D. Perkins Career and Technical Education Act* through Grant R305N180005 to the American Institutes for Research. The work of the Network member projects is supported by the Institute. The opinions expressed are those of the authors and do not represent the views of the Institute or the U.S. Department of Education.

Module Description

Building on the preceding modules, this module explores how to use research findings to strengthen communications about your CTE program's value. You will learn about the value of developing a strategic approach for communicating research findings, including how to tailor your message to the needs of the different audiences you want to reach. The module closes with a review of communication options available and what they look like in action. This module is designed to support school district and college CTE program administrators.

Module Objectives

After viewing this module, practitioners will be able to:

- Learn how to communicate your CTE program's value and research findings to different audiences and stakeholders.
- Understand real-world examples of types of communication.

Intended Audience

This training module is intended for local and state program administrators. It can be done individually using the facilitator's guide. Groups or teams also will benefit from this module being led by a facilitator using this guide.

Materials

The following materials are recommended for the training module and associated activities:

- Module 6 PowerPoint
- Copies of Activities 1–3:
  - Activity 1: Opening Self-Reflection
  - Activity 2: Desired Impact Self-Reflection
  - Activity 3: Closing Self-Reflection

Time Requirements

The total time required for this module is approximately 60 minutes. You may need to allot additional time for the activities depending on the audience's familiarity with the content.

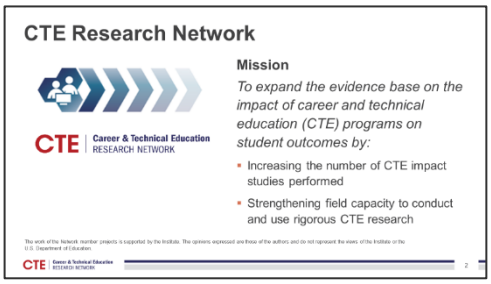
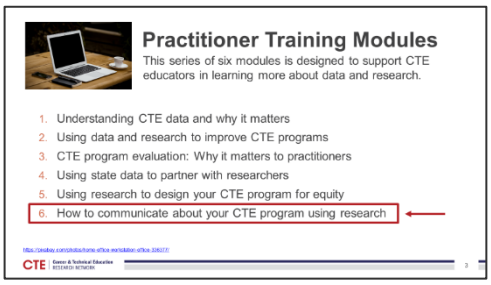
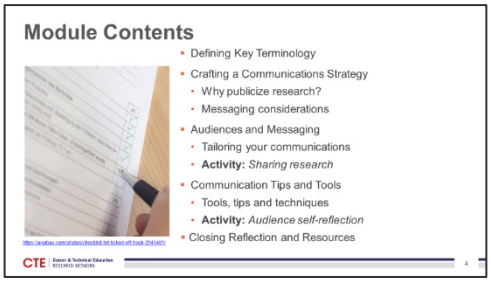
Outline of Module

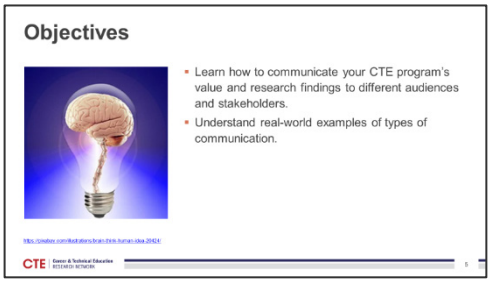
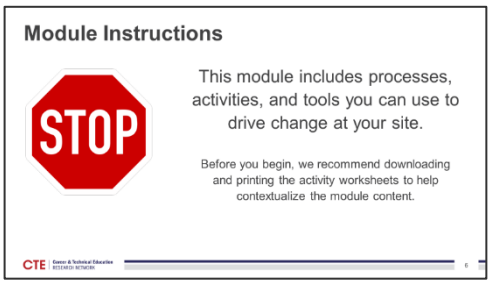
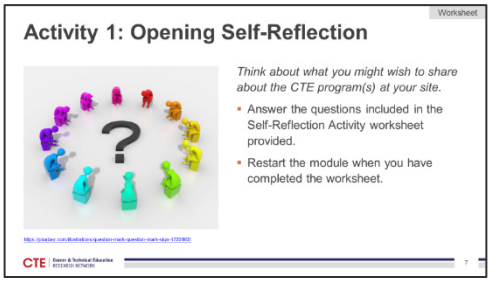
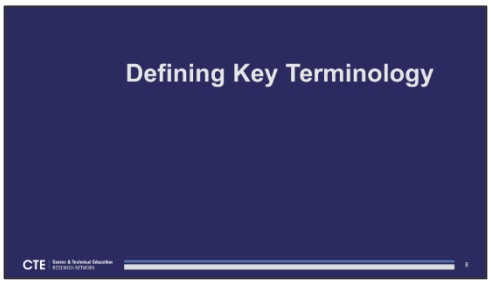
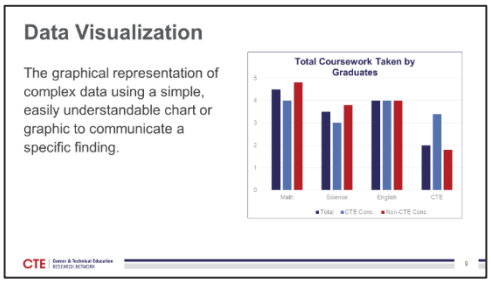
Materials	Activities	Estimated Time
Slide 1	None (cover slide)	As participants arrive (if in-person)
Slides 2–4	Welcome, Introductions, Agenda, and Overview	5 minutes
Slides 5–6	Objectives/Instructions	3 minutes
Slide 7; Activity 1	Opening Self-Reflection Activity	5 minutes
Slides 8–11	Defining Key Terminology	5 minutes
Slides 12–16	Crafting a Communications Strategy ▪ Why Communicate Research Findings? ▪ Types of Data: Module 2 Review ▪ Types of Research: Module 3 Review ▪ Change in Mindset	15 minutes
Slides 17–20; Activity 2	Audiences and Messaging ▪ Audiences ▪ Connect Your Message to Your Goal	5 minutes
Slides 21–31	Communication Tips and Tools ▪ Communicate to Engage Your Audience ▪ Data Visualization ▪ Infographics ▪ Making Research Understandable ▪ Change in Mindset ▪ Communication Examples	15 minutes
Slides 32–36; Activity 3	Closing Activity, Resources, and Contact Information	7 minutes
Total Time		**60 minutes**

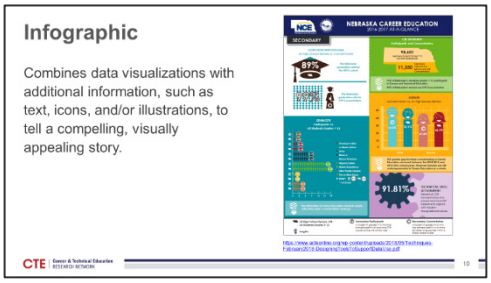
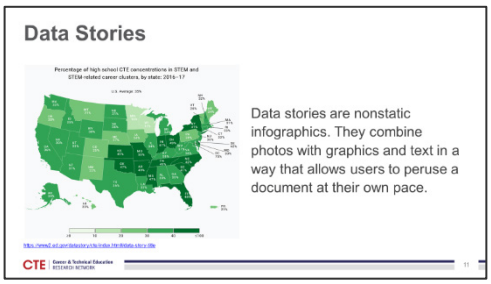
Facilitator's Script/Notes for Module

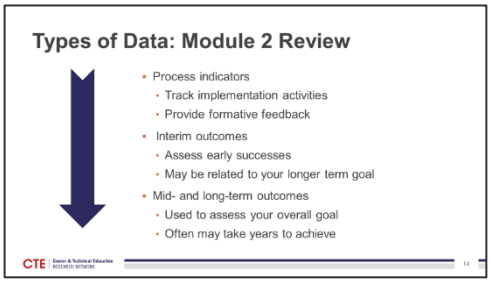
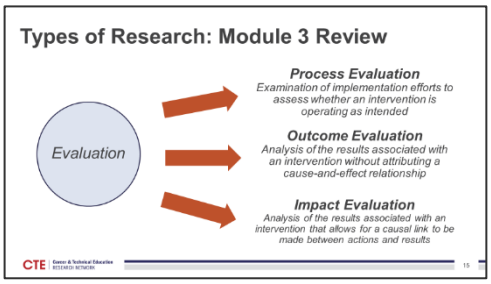
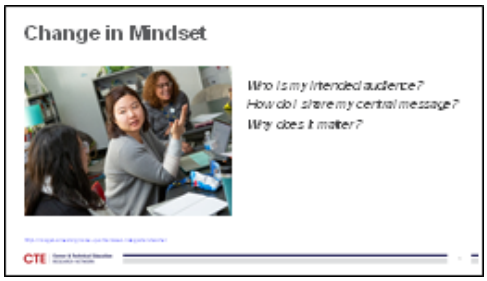
The following section is a slide-by-slide script that provides guidance to facilitators as they present the content and learning activities included in this module. Reviewing the entire guide prior to facilitating the module is highly recommended.

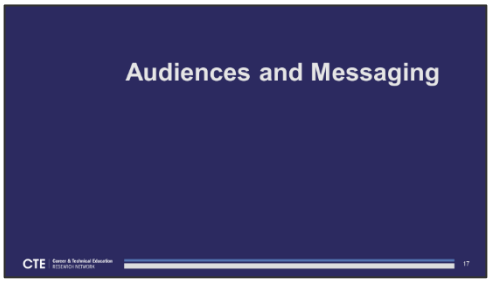
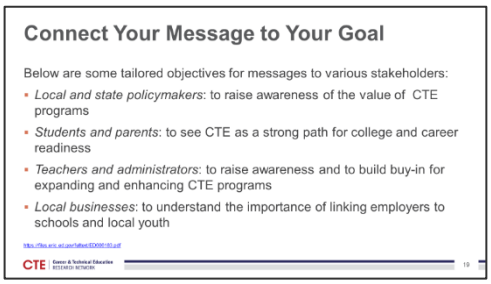
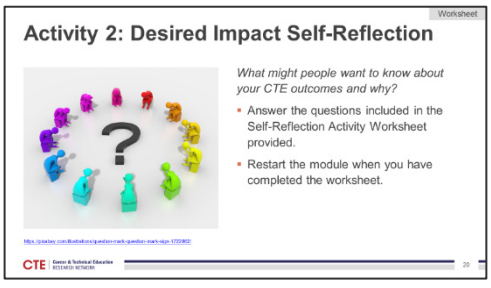
Module 6: How to Communication About Your CTE Program Using Research

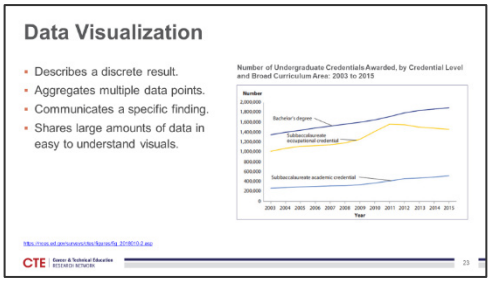
Script and Notes	Slide
Slide 1: High-quality career and technical education, often referred to as CTE, can prepare students to succeed in postsecondary education and careers. This module is designed to support school district and college CTE program administrators in understanding CTE data and how best to use them.	
Slide 2: The CTE Research Network is supported by the Institute of Education Sciences at the U.S. Department of Education with funds provided under the Carl D. Perkins Career and Technical Education Act through Grant R305N180005 to the American Institutes for Research (AIR). Network activities are directed toward increasing the number of CTE impact studies and strengthening the capacity of the field to conduct and use rigorous CTE research.	
Slide 3: The CTE Research Network has developed this series of practitioner training modules to support CTE stakeholders in learning more about how to use data and research to improve CTE programming. Although the modules need not be viewed sequentially, we suggest that you consider doing so if you plan to complete the entire series. This sixth and final module in the series builds on information presented in the preceding modules to help you learn how to improve your communications about your CTE program's value using research findings.	
Slide 4: This module reviews the value of developing a strategic approach for communicating research findings and messaging considerations in doing so. Next, it considers the different audiences you will want to reach and how to tailor your message to fit their needs. The module closes with a review of the different types of communication you may choose from and techniques for using them, along with some state examples of what this looks like in action. Activities also are provided to help you build hands-on understanding and to practice what you learn.	

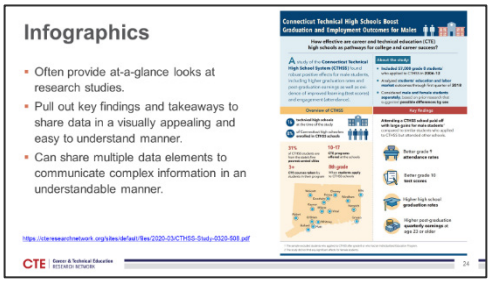
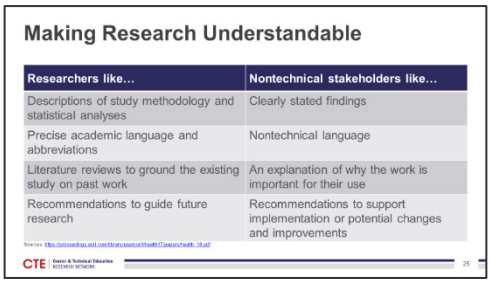
Script and Notes	Slide
Slide 5: By the end of this module, you will have learned strategies for communicating research findings to different audiences and stakeholders to publicize your CTE program's value. You also will understand techniques for communicating instructional benefits based on real-world examples.	
Slide 6: This interactive module includes processes and tools to help you improve CTE programming at your site. To contextualize your experience, activities are provided to help you gain an understanding of how you may use the tools provided to implement change. Before you continue, we recommend downloading and printing the activity worksheets and actively using them to apply your learnings.	
Slide 7: (5 mins.) To help frame your module engagement, please think about what you might wish to share about the CTE program(s) at your site. Stop the module and follow the directions on the Self-Reflection Activity worksheet.	
Slide 8: It's important that you are aware of some key terminology prior to undertaking your communications effort. The following slides review some key terms used throughout this module. You may wish to download the module glossary that includes these terms, as well as other terms relating to the use of data and research, to help inform your work.	
Slide 9: Researchers often collect large amounts of data when conducting a study. Presenting these data in numerical tables can overwhelm many audiences, particularly if they do not have a research background. Data visualization is a technique that entails summarizing complex quantitative and qualitative information contained within a database into a simple, easily understandable chart or graphic to communicate a specific finding.	

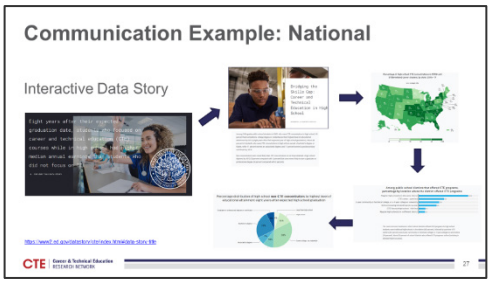
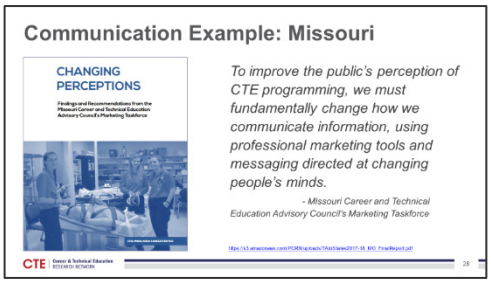
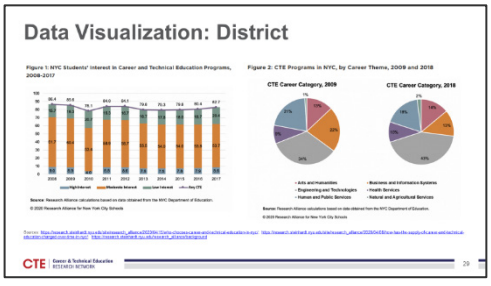
Script and Notes	Slide
Slide 10: An infographic combines one or more data visualizations with other types of information, which may include text, icons, and illustrations, to tell a story. An infographic also is organized to communicate ideas in terms of an organized progression. So, although both data visualizations and infographics are designed to summarize complex information in a simple, easily understandable manner, data visualizations typically focus on a discrete concept while an infographic offers a more nuanced description of what is occurring.	
Slide 11: Infographics need not be static. Data stories combine photos with graphics and text, and the story is designed to engage users by having them scroll through the document at their own pace. Users can choose to view the specific data in which they are interested through filtering and can learn more about data points through text and visual pop-ups that appear as they mouse over the visualization. Clicking on the visualization also can link to additional information about the specific data point selected. Ultimately, this format provides the opportunity for more information to be available to users without visually overwhelming them or crowding the display. Interactive visualizations can directly be embedded into websites, dashboards, and applications to develop an immersive story-telling experience.	
Slide 12: We will now explore considerations in crafting a communications strategy to help formulate your messaging approach.	
Slide 13: There are many different types of research findings that you may want to communicate about your CTE program. Regular and well-designed dissemination efforts can help in the following ways: ▪ Reassure stakeholders that program services are of high quality, relevance, and usefulness to participants. This can help to build support for your programming and win over doubters, who may have misperceptions of the value of CTE. ▪ People want what is best for their children. Communicating your research findings can help to create a positive buzz, which can help you in increasing student enrollments in existing programming and make the case for expanding the number of program offerings. ▪ Policymakers and administrators want to invest in what works. Communicating program benefits can help to raise additional funding and resources that you can use in support of CTE. ▪ Research is intended to inform. Publicizing the outcomes of high-quality CTE programming may help to build knowledge in the field, which can inform education policy.	

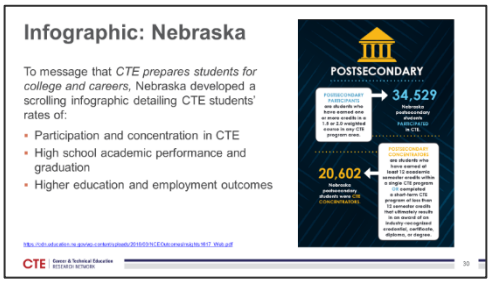
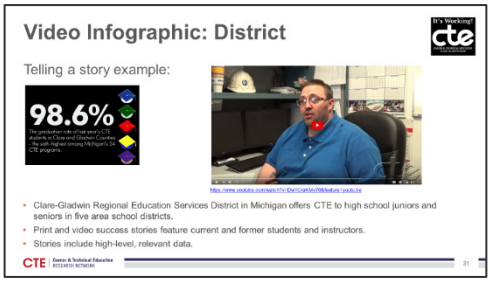
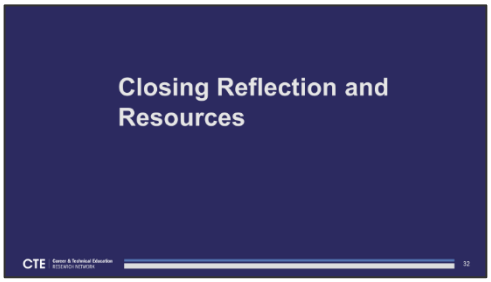
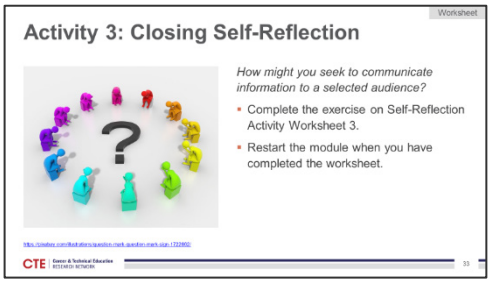
Script and Notes	Slide
Slide 14: Before creating a communication plan, let's first identify what we mean by CTE research findings. As discussed in Module 2, data are typically collected for two purposes. One is to provide formative information on what a program is achieving, such as numbers of participants served and the quality of services delivered to participants. Outcome data describe what a project has achieved as a result of its services. Both types of data may be of interest to your stakeholders. **Process indicators** track the progress you are making in rolling out your initiative. These may include metrics related to the number of times that groups are meeting or the number of individuals attending activities. **Interim outcomes** provide information on your early successes. Due to the time it may take for students to progress through a CTE program, interim outcomes can be used to assess initial success. **Mid- and long-term outcomes** offer insight into whether you are achieving your overall goal. They may take years to manifest as students must move through a CTE program and progress into higher education or the workforce for outcomes to be observed.	
Slide 15: Data are typically used to produce research findings. The values of these findings will vary depending upon the purposes for which they are used. Module 3 describes three program evaluation strategies that can provide different types of research findings. **Process evaluations** are directed toward assessing implementation; they are designed to assess whether an intervention you undertake is operating as intended. Here, the audience may be school or college administrators and educators engaged in your CTE programming. **Outcome evaluations** focus on results; they can help you to assess the outcomes that are produced, though they will not allow you to attribute them to a cause-and-effect relationship. Here, the audience may consist of a broad range of stakeholders; however, care must be taken when communicating results as they cannot be conclusively attributed to your programming. **Impact evaluations** also focus on results; however, because of the way they are designed, they allow for a causal link to be made between actions and results. Here, research findings might have broad applicability as the results achieved can be directly connected to your programming.	
Slide 16: As you plan to communicate the results of your CTE program evaluation, ask yourself three questions to help guide your writing: 1. Who is my intended audience? To which individuals or groups do I want or need to communicate about my program? How is this information important to them; put another way, why should your reader care about what you say? 2. How do I share my central message? How will you package information to make it meaningful and understandable?	

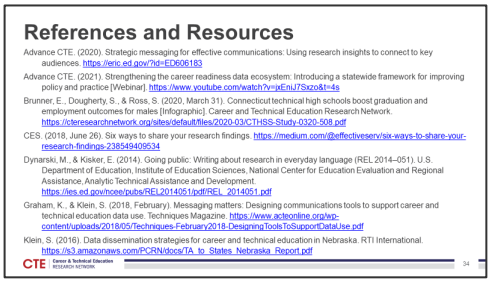
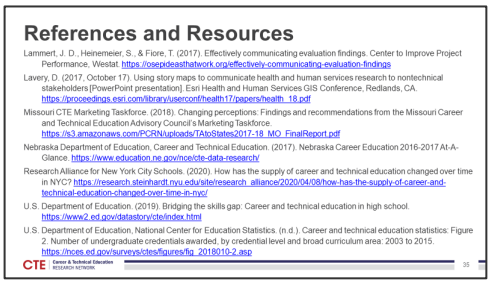
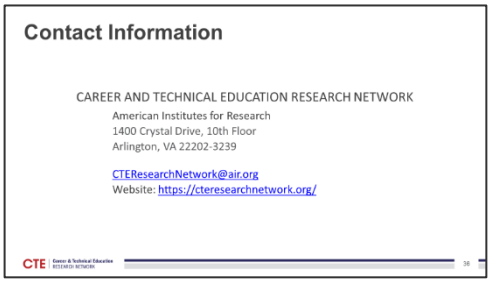
Script and Notes	Slide
3. Why does it matter? What do you want or hope to see change as a result of communicating about your program? Whose attitudes or behaviors do you hope to influence? We'll take up each of these questions in the following sections.	
Slide 17: We will now explore who the audience is for your message and approaches you can use to tailor your presentation to it.	
Slide 18: The audiences for your CTE research findings may be comprised of a range of key stakeholders with differing interests and needs. These audiences can be broken down into two categories: those directly connected and those indirectly connected to your program. Individuals directly connected may include participants and their families, site administrators and teachers engaged in your program, participating employers or community groups, or program funders. Those indirectly connected may include state and local policymakers, other high school and postsecondary educators, and local business owners and community members, all of whom might benefit from learning about your work. Keep in mind that members of the media also are an important audience as they can help you to communicate your results more broadly if engaged. It is important to note that your communication methods will differ depending on your audience.	
Slide 19: Your task is to turn your findings into messages tailored to each audience. Ideally, each message includes one to two takeaway(s) that speak directly to your audience (and, if possible, your desired impact for that audience). For example, students may be more interested in information on how CTE participation can make learning more interesting and prepare them for a range of education and career options. Employers, in comparison, may be more interested in information about how CTE programming teaches students technical and employability skills that will help improve the productivity of new hires and reduce training costs.	
Slide 20: (5 mins.) The following activity will help you to begin thinking about your potential audiences and what they might like to know about your CTE research findings. Stop the module and follow the directions on the Self-Reflection Activity worksheet.	

Script and Notes	Slide
Slide 21: We will now explore different techniques you may use to communicate your research findings.	
Slide 22: Perhaps the most important thing to remember is that your communication needs to engage your audience. You first need to win people's hearts if you are to win their minds. One way to do so is emphasizing that results are about real people rather than abstract numbers. Tell the story by putting a face to results. That is a powerful way to remind people that each program participant, provider, and so on is a real person with their own story. You can make results easier to process by messaging key takeaways. You can do this by offering headlines or key takeaways, which may be easier to digest than numbers. But keep in mind that some people will want to see data, so be sure to offer this detail; for example, by using charts and graphics. Finally, keep in mind that what you communicate should be tailored to your audience's needs. For example, guidance counselors might be interested in understanding the extent to which females complete CTE programs that prepare them for fields that are nontraditional for their gender. The example shared on the slide captures an easy-to-understand headline, an image supporting the headline, a graphic to show the data that supports the headline and then several key related takeaways.	
Slide 23: Data visualization often is used to offer a graphical representation of complex data using an easily understandable chart, graph, plot, or diagram to communicate key findings. Data visualizations are excellent tools for collapsing a great deal of qualitative or quantitative data into a simple digestible result. Generally, a data visualization is used to illustrate a discrete set of data. For example, the National Center for Education Statistics collects a great deal of data on secondary and postsecondary students' participation in CTE and the outcomes they achieve. A more recent trend with data visualization is related to interactive visualization where users are invited to hover over maps or clickable charts for opportunities to dig deeper into the data and learn even more. This data visualization uses a line graph to offer information on the number of undergraduate credentials awarded by credential level and broad curriculum area, between 2003 to 2015. It shows that the number of subbaccalaureate occupational credential awards increased from 2003 to 2011, then decreased from 2011 to 2015. This type of data visualization can be an effective way to share a large amount of data while helping your audience understand how changes over time are manifested.	

Script and Notes	Slide
Slide 24: An infographic combines one or more data visualizations with additional information, which may include text, icons, and/or illustrations, to tell a story. An infographic also is organized to communicate ideas in terms of an organized progression. So, although both data visualizations and infographics are designed to summarize complex information in a simple, easily understandable manner, data visualizations typically focus on a discrete concept, whereas an infographic offers a more nuanced description of what is occurring. For example, this infographic, developed by a team at the University of Connecticut and Vanderbilt University, which is affiliated with the Career and Technical Education Research Network, describes how Connecticut's technical high schools have boosted graduation and employment outcomes for male students. A copy of this infographic is included as a module resource. Take a moment to open the infographic and read it to gain an understanding of how research findings can be used to tell a story.	
Slide 25: One challenge of communicating your research findings is that the preferences of researchers differ from those of nontechnical stakeholders to whom you may disseminate your findings. This table provides just a few examples of these variations. For example, researchers often favor descriptions of study methodology and statistical analyses when talking about their research. This is because they are used to messaging to their peers. Nontechnical stakeholders are looking for answers. This means they want clearly stated findings that tell them what the study found.	
Slide 26: To communicate effectively, a change in mindset is required. In seeking to communicate outcomes, you will need to shift from a research mindset to one that emphasizes communication. This requires that you think of your audience and tailor your message to them. For example, researchers may view a final report as the product of their work—and they are right. But a communications mindset means thinking about how you can make the findings within the report meaningful for CTE stakeholders, many of whom may have limited research skills. When communicating research findings, use the following rules: **Be clear and concise:** Explain research findings in simple language that will resonate with your audience. This means avoiding jargon and, when you must use technical language, providing clear definitions. For example, most educators do not know who a CTE concentrator is but understand what it means for a student to earn credits in a single CTE program or program of study. Also, be concise in your writing. Assume that your readers are busy and do not have the time or interest in plowing through a long, densely written report. **Focus on what matters:** Readers want to know what you found, so emphasize results over methods. This is not to say that process is unimportant. Although you should provide a methodological grounding for the research you conducted, you may wish to provide a high-level overview in the body of your text and move highly technical discussions into a technical appendix. Your readers need	

Script and Notes	Slide
to trust that your research is grounded in best practice, but most will be more interested in what you found rather than how you went about studying it. **Say what you mean:** Seek to write in a way that will avoid misinterpretation. Research findings are often nuanced, and it may be easy for readers to make incorrect assumptions if you do not clearly state what you found. For example writing, "Study findings found that concentrating in CTE had no effect on college enrollment for high school graduates" could lead readers to conclude that CTE may lead students to be indifferent to postsecondary education. To avoid misinterpretation, the result could be presented as, "Study findings found that high school graduates concentrating in CTE programs or programs of study were as likely to enroll in college as students who earned fewer than 2 credits in a CTE program or program of study." The next several slides share examples of how to do this using the tools we previously highlighted.	
Slide 27: Infographics need not be static. As an example, the U.S. Department of Education created a web-based interactive data story, combining data visualizations and text, to describe how CTE is offered in American high schools and the outcomes that students who participate in these programs achieve. In addition to combining photos with graphics and text, the story is designed to engage users by having them scroll through the document at their own pace. Also, by using research findings compiled at the national level, the infographic helps to tell a compelling story of the impact of CTE at both the national and state levels.	
Slide 28: Although CTE programming in Missouri is both innovative and ambitious, student participation in programming remains low. To address this challenge, the state formed a CTE marketing taskforce to develop strategies to share data and research about the benefits of CTE to promote student engagement. Members concluded that the solution was to find new ways of communicating information about CTE's benefits. Strategies identified included developing a targeted and comprehensive communications and marketing plan to coordinate statewide messaging; targeting outreach toward key stakeholders, using messaging that will resonate with different audiences; and including a mix of processes, tools, and activities, with delivery tailored to stakeholders' desired communications channels. This approach to communications and marketing research formed the backbone for how the state might approach its information dissemination.	
Slide 29: An example of data visualization comes from the Research Alliance for New York City (NYC) Schools. This collaboration of policymakers and educators, formed in 2008, works to produce high-quality and useful research to support independent analysis of outcomes, trends, and reform strategies. To document student engagement in CTE programming, the group has tracked students' interest in CTE programs over time. Here, we see two examples of data visualizations. The first offers information on NYC students' relative interest in CTE programs between 2008 and	

Script and Notes	Slide
2017, with results broken into those with high interest, moderate interest, and low interest. The trend line at the top of the figure shows student participation in any CTE programming. Figure 2 presents data using pie charts to compare the relative proportion of CTE programs offered in NYC schools, by career theme, in 2009 and 2018. It shows the largest increases occurred in Engineering and Technologies career fields, which grew from 34% to 43% of all programming. In contrast, Business and Information Systems careers areas declined from 22% to 13% over the decade.	
Slide 30: Recognizing that the general public needs clear information on student outcomes, the state of Nebraska has made communication a central focus of its CTE strategy. The state's CTE Data and Research website provides findings from the analysis of state data to share resources on a range of topics, including students' participation in CTE and the outcomes they achieve, achievement on performance indicators contained in the federal Strengthening Career and Technical Education for the 21st Century Act (also known as Perkins V), the return on investment in CTE, and labor market information. To simplify public access to these statistics, the state has developed a comprehensive infographic that users may scroll through to track student progress through the state's CTE programming. This graphic illustrates data on the number of students participating in and attaining CTE concentrator status at the postsecondary level.	
Slide 31: Information also may be presented via video. For example, the Clare-Gladwin Regional Education Services District in Michigan has compiled videos that tell the story of CTE, combining program outcomes with narration by present and past students. For example, one video presents information on how a student translated their high school CTE programming into a career, interspersed with statistics on students. Take a moment to review this short 2:47-minute video to see an illustration of this approach.	
Slide 32: Congratulations on completing Module 6: How to Communicate About Your CTE Program Using Research. We hope that this module has provided you with useful information to help you communicate research findings about CTE programming.	
Slide 33: (10 mins.) Think about the outcome and audience you identified in earlier activities. How might you seek to communicate information to your selected audience? Stop the module and follow the directions on Self-Reflection Activity Worksheet 3.	

Script and Notes	Slide
Slides 34–36: References, Resources, and Contact Information Review resources and final slide with contact information. Thank participants for attending.	  

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