THE WILLIAM & IDA
FRIDAY INSTITUTE
FOR EDUCATIONAL INNOVATION

School Technology Needs Assessment for Students (STNA-S)

About the STNA-S Instrument

If you decide that you have a question that might be addressed with data describing your students' perceptions about technology use, consider using the School Technology Needs Assessment for Students (STNA-S, pronounced "Stenna-S"). The STNA-S collects information from students about the technology resources in their schools, how students and teachers use technology, students' technology skills, and the benefits of technology use. More specifically, STNA-S is expected to uncover student perceptions of the following eight constructs:

Constructs Measured by STNA-S

- **Resource Availability** measures the extent to which technology resources are available for student and teacher use.
- **Infrastructure measures** the extent to which the school technology system (including internet connectivity) is robust and reliable.
- **Technology Support** measures the extent to which students and teachers can get help, and from whom, when technology problems or questions arise.
- **Teacher Technology Use** measures the frequency with which teachers use technology for school-related purposes (e.g., instruction, communication).
- **Student Technology Use** measures the frequency with which students use technology for school-related purposes (e.g., learning, communication).
- **Student Technology Skills** measures how far along students are in their learning of basic and advanced technology skills.
- **Impacts of Technology Use** measures the impacts that technology use has on student interest, development of soft skills, learning, and achievement.
- **Development of 21st Century Skills** measures the impacts that technology use has on student development of 21st century skills.

Checklist for Implementing the STNA-S

The following checklist is provided to help you plan and implement the STNA-S in a way that will maximize its value, in terms of informing school-level planning for technology use.

Planning for STNA-S Use

- ☐ Convene whatever team is responsible for evaluation and/or technology planning in your school.
- ☐ Clarify and come to consensus on what you hope to learn by doing the STNA-S. In other words, what questions do you hope to answer?
- ☐ Review the STNA-S instrument and supporting documentation.
- ☐ Determine if STNA-S data will be useful in answering your questions.
- ☐ Determine who will be your school-based "STNA-S manager;" the person responsible for managing your STNA-S implementation.

- ☐ Develop a way to keep track of who has—and has not—completed your STNA-S. *The online system does not record each respondent's identity.*
- ☐ Determine how and when respondents will complete your STNA-S, ensuring that your entire student body is given the opportunity to take the survey. How you choose to do this will depend on your technology resources and school day schedule. *It has been our experience that it is not effective to simply email the STNA-S URL to students—we have seen 0% response rates using this approach. We recommend setting a particular date and time for students to take the survey, or having students take it during a particular class. Students will need access to computers and the internet to take the survey, which is web-based. Pilot testing suggests that the survey should take about 10-20 minutes for students to complete.*
- ☐ Plan ahead for the possibility that students may have different levels of the skills necessary to complete a web-based survey instrument. *See Managing STNA-S Responses, below.*
- ☐ Communicate in advance with school staff about the purpose of the STNA-S, how it fits into school technology or evaluation planning, and how important it is that every student completes the instrument. *Be sure that everyone understands that it is impossible to identify individual respondents among the STNA-S data; that data are reported at the aggregate level; and that STNA-S data will not be used to assign awards or sanctions to individual students, staff members, or schools.*
- ☐ Define a plan for disseminating STNA-S findings to the entire school staff, and ideally to the student body as well.

Initializing the Online STNA-S Instrument

- ☐ Determine the date on which you want your online STNA-S to open, and the date on which you want it to close.
- ☐ Determine how many students you expect will complete your STNA-S. *Note that you should provide the opportunity for the entire student body to take the survey.*
- ☐ Have your school's STNA-S manager email Jennifer Maxfield (jennifer_maxfield@ncsu.edu) or Jeni Corn (jocorn@ncsu.edu) at the Friday Institute and provide the above information (i.e., date range and number of students). *Allow 3-5 working days for your STNA-S to be initialized.*
- ☐ Your STNA-S manager will receive a return email with the URL to your school's individualized STNA-S.
- ☐ It may be useful to create a shortcut or bookmark on the computers that will be used to guide respondents to the correct URL.

Managing STNA-S Responses

- ☐ When your STNA-S opens, implement the plan your school developed, including the system for tracking respondents, and follow up as necessary in order to assure a sufficiently high rate of response.
- ☐ Have someone with appropriate technology skill available to support students as they complete the online STNA-S. *The instrument does not require substantial technical skill, but it is necessary that respondents know how to open a web browser window and complete and submit online forms.*
- ☐ Note that it is possible for a respondent to submit more than one set of answers. This is generally not an issue, since few really care to complete the instrument more than once, but it should be kept in mind as a possible source of error. The likelihood of this problem may be reduced by setting a specific time for all students to take the survey at the same time.

Using Your STNA-S Data

- ☐ When your STNA-S has closed, you will receive an email indicating your response rate, a note indicating whether or not the Friday Institute can certify that your results are likely representative of your entire staff, and your STNA-S report.
- ☐ Convene the evaluation or technology planning team.
- ☐ Share the STNA-S report among planning team members. *Note that a guide for how to interpret the data is provided at the beginning of the report.*
- ☐ Make appropriate inferences from your STNA-S data. *At this point, it is critical to revisit the questions originally asked. STNA-S provides a lot of data, and it is possible to become distracted by issues other than those seen as important during the planning process.*
- ☐ Examine your STNA-S findings for surprises or unanticipated findings.
- ☐ Revisit and refine the questions that STNA-S data were expected to answer. *It is not at all unusual to discover that a primary finding arising from STNA-S data is that more data are required to really understand issues at hand.*
- ☐ Consider next steps in the evaluation process. *For example, it may be necessary to convene groups to discuss why students responded to STNA-S like they did, or the planning team might examine possible changes to program implementation based on findings.*
- ☐ Share your STNA-S findings with the entire school staff, and ideally with the entire student body as well. *By doing so, buy-in will be encouraged, increasing involvement in the evaluation process and raising the likelihood of future participation in data collection activities.*