Instruction Guide to STEM Scale-Up Monitoring

Purpose: To provide teachers/leaders of Iowa STEM Scale-Up Programs with specific instructions regarding evaluation reporting requirements in support of the Iowa STEM Monitoring Project (ISMP). Three submissions are expected from all Scale-Up Programs. Please direct questions to the UNI Center for Social and Behavioral Research:

Erin Heiden - 319-273-6506(p), erin.heiden@uni.edu;
Mitch Avery - 319-273-7451(p), mitchell.avery@uni.edu

Please contact Erin or Mitch to discuss specific circumstances or challenges to completing the three evaluation activities, or to request an extension for Scale-Up Programs ending after the deadline date. The ISMP team will work to make accommodations on a program-by-program basis.

I. Teacher/Leader Survey

Teacher/Leader Survey is coordinated by the Research Institute for Studies in Education, Iowa State University

1. Go to www.iowastem.gov
2. Click the "Scale-Up Monitoring" link
3. Click the "Teacher/Leader Survey" link to go to the online survey

   (Direct link: https://iastateeducation.qualtrics.com/SE/?SID=SV_bBp7OoESuXAs2fr)
4. Answer each question in the online survey

Deadline: As soon as possible after the last day of the STEM Scale-Up program.
All surveys must be completed by May 15, 2015.

II. Student Participant List

Student Participant List data collection is coordinated by Iowa Testing Programs at the University of Iowa.

Note: A Student Participant List is required from any Scale-Up program directly implemented with students in grades K-12 or indirectly impacting students through their teacher/leader's participation in a Scale-Up professional development program.

1. Go to www.iowastem.gov
2. Click the "Scale-Up Monitoring" link
3. Download the Student Participant List Excel template
4. Enter each STEM Scale-up student participant's **full first-name and last-name** (No abbreviations or nicknames, please); *AND*
   a. The student's **10-digit, state-issued student ID number;**
   b. The student's **school district, school building name, birthdate, and gender**

   Note: The state-issued, studentID is a unique 10-digit number assigned by the Iowa Department of Educaiton; it is not the student's social security number or local school ID. As a teacher/leader, you may not have access to students' 10-digit, state-issued studentIDs. If you do not have access to your students' studentID number, you may be able to get assistance from your building's guidance counselor or principal. All students in public and accredited non-public schools are required to use the Iowa Department of Education's StateID system, so every student should have one. In some cases, it may not be possible to provide the Scale-Up participant's state-issued-studentID, particularly if your Scale-Up Program was implemented in an out-of-school setting. If the student's state-issued-studentID is unknown, please be sure to include student's name, school, birthdate and gender.

5. Upload the completed Excel document
   Note: Since this document contains protected student information, it must be submitted directly from the school/club/organization to Iowa Testing Programs at the University of Iowa. Do not submit this document to the STEM Regional Manager, STEM programming service providers, or anybody else.
   a. Go to www.iowastem.gov
   b. Click the "Scale-Up Monitoring" link
   c. Click on the "Upload Student Participant List" link
      i. The link will take you to Iowa Testing Programs at the University of Iowa. (Direct link: itp.education.uiowa.edu/stem/)
      ii. Enter access code: 9Gd56#N2&MN45@9 (effective August 21, 2014)

Deadline: Submit as soon as possible after the end date of the Scale-Up program. Student participant lists must be uploaded no later than May 15, 2015.

III. Student Survey

Student Survey data collection is coordinated by the Center for Social & Behavioral Research at the University of Northern Iowa.

Note: The following materials will be provided to you, and are also available at iowastem.gov. You are responsible for making copies for your students/participants.

- A notification letter to send home to parents before students complete the questionnaire
- A one-page student questionnaire (Three versions provided to accommodate different grade levels)
- A script to read to students when you administer the survey
- Cover page with contact information to return completed questionnaires directly to UNI

1. Send home the notification letter to parents about the STEM Scale-Up Student Survey before the end of your STEM Scale-Up Program
2. Schedule a time to administer the student survey as directed below:
   a. Classroom/school-based programs - Administer the survey on the last day of the STEM Scale-Up Program (or as close as possible to the end date)
   b. Teacher professional development programs - Administer the survey to students taught by those teachers at the end of the term (e.g. trimester, semester, or school-year) in which the professional development was most intensive
   c. Out-of-school programs - Administer the survey on the last day of the STEM Scale-Up Program (or as close as possible)
3. Choose the version of the survey most appropriate for the grade level of your students, and make copies
4. Before handing out the student survey, read the script out loud to students
5. Hand-out the one-page student questionnaire
6. After students complete the questionnaire, collect and place in an envelope
7. Complete the cover page and send the cover page with questionnaires to UNI:

   UNI CSBR
   Attn: Iowa STEM Monitoring Project
   Cedar Falls, IA 50614-0402

Deadline: Complete on the last day of the STEM Scale-Up Program. Student surveys must be postmarked to UNI by May 30, 2015.

Iowa STEM Scale-Up Program_Student Participant List

Download this Excel Template at iowastem.gov

Upload the completed student participant list to Iowa Testing Programs at University of Iowa

Use the following link: itp.education.uiowa.edu/stem/

And access code: 9Gd56#N2&MN45@9 (effective August 21, 2014)

Contact Information		Instructions
Scale-Up Program Name:		**2014-2015 Scale-Up Programs** **A World in Motion (AWIM)** **HyperStream** **CASE for Ag** **KidWind Renewable Energy STEM** **Defined STEM** **SCI Pint Size Science** **Engineering is Elementary** **Project Lead The Way: Engineering** **FIRST Tech Challenge** **Project Lead The Way: Gateway**
Teacher/Leader Name:		**Contact Information:** Enter name of the teacher or leader who conducted the Scale-Up Program and contact information
Email Address:		School District Name: Name of the school district the youth attends
School District or Organization		School Building Name: Name of the school building the youth attends **Student Participant Name:** Enter full first-name and last-name of each youth participant (No abbreviations or nicknames please)
School Building		**10-digit-state-issued-studentID:** Enter the unique 10-digit number assigned by the Iowa Department of Educaiton to all students in public and accredited non-public schools; it is not the student's social security number or local school ID. (See Notes at bottom of page.)
STEM Hub Region:		**Birthdate:** Enter birthdate using mm/dd/yyyy format **Notes:** Add rows as needed for additional participants.

FirstName(Full)	LastName	10-digit-state-issued-StudentID	Male /Female	Birthdate (mm/dd/yyyy)	School District Name	School Building Name

Note1: The state-issued, studentID is a unique 10-digit number assigned by the Iowa Department of Educaiton; it is not the student's social security number or local school ID. As a teacher/leader, you may not have access to students' 10-digit, state-issued studentIDs. If you do not have access to your students' studentID number, you may be able to get assistance from your building's guidance counselor or principal. All students in public and accredited non-public schools are required to use the Iowa Department of Education's StateID system, so every student should have one. In some cases, it may not be possible to provide the Scale-Up participant's state-issued-studentID, particularly if your Scale-Up Program was implemented in an out-of-school setting. If the student's state-issued-studentID is unknown, please be sure to include student's name, school, birthdate and gender.

Note2: Since this document contains protected student information, it must be submitted directly from the school/club/organization to Iowa Testing Programs at the University of Iowa. Do not submit this document to the STEM Regional Manager, STEM programming service providers, or anybody else.

University of Northern Iowa and
Iowa Governor's STEM Advisory Council
STEM Scale-Up Student Survey

Information and Parent Notification

Dear Parent:

Your child is taking part in a program funded by the State of Iowa to increase interest and achievement in science, technology, engineering, and mathematics (STEM). To find out about the ways this and similar programs may impact interest in STEM among youth, we are conducting a survey of youth. The survey is sponsored by the Iowa Governor's STEM Advisory Council. The content of the survey includes questions related to youth interest in STEM and interest in someday pursuing a STEM career. Iowa will use the information to improve and enhance STEM programs for youth. The student survey is being managed by the University of Northern Iowa.

There is very little or no risk to your child for participating. Your child's privacy is protected, student names or other identifying information are not collected on the student surveys, and any reports of findings are for large groups of students combined without the names of schools being mentioned. Your child will not receive any special benefits for taking part in the survey, although results may help similar children in the future. We would like all children that take part in Scale-Up programs to respond to the survey as this enhances the quality of the findings, but participation is voluntary. Your child is free to stop answering questions at any point in the survey, as well as decide not to participate at all. No action will be taken against you or your child if your child does not participate.

If you have questions about the project, you can contact Dr. Erin Heiden, University of Northern Iowa, at 319-273-2105. You can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 319-273-6148, for answers to questions about the rights of research participants and the participant review process.

If you do not wish for your child to take part in this survey, please inform your child's teacher or Erin Heiden at the University of Northern Iowa.

University of Northern Iowa and
Iowa Governor's STEM Advisory Council
Scale-Up Program Student Survey Script

Teacher/Leaders – Please read to students before administering the student survey

6TH THROUGH 12TH GRADE

SCRIPT for program leader/teacher announcement (STUDENT ACTIVITY):

You have been participating in a science, technology, engineering, and math program. Organizers of the program are curious how the program impacts student attitudes. To find out, I am asking you to complete a short questionnaire. You are under no obligation to complete the questionnaire and your decision will have no impact on your standing in this class in any way. Do not write your name on the questionnaire. When you have finished, place it face-down on your desk. When everyone is done, I will come around with an envelope for you to place your sheet in.

SCRIPT for teacher announcement (TEACHER PROFESSIONAL DEVELOPMENT):

Students, I have volunteered to participate in a program about teaching science, technology, engineering, and math. Organizers of the program are curious how teacher participation in the program impacts student attitudes. To find out, I am asking you to complete a short questionnaire. You are under no obligation to complete the questionnaire and your decision will have no impact on your standing in this class in any way. Do not write your name on the questionnaire. When you have finished, place it face-down on your desk. When everyone is done, I will come around with an envelope for you to place your sheet in.

K THROUGH 5TH GRADE

SCRIPT for program leader/teacher announcement (STUDENT ACTIVITY):

You have been taking part in a science, technology, engineering, and math program. Organizers of the program are curious how the program impacts students. To find out, I am asking you to answer a few questions. You do not have to answer the questions and nothing bad will happen if you don't answer them. Do not write your name on the sheet. When you have finished, put it face-down on your desk. When everyone is done, I will come around with an envelope for you to put your sheet in. *[If necessary for age group, read questions and responses to students.]*

SCRIPT for teacher announcement (TEACHER PROFESSIONAL DEVELOPMENT):

Students, I have taken part in a program about teaching science, technology, engineering, and math. Organizers of the program are curious how the program impacts students. To find out, I am asking you to answer a few questions. You do not have to answer the questions and nothing bad will happen if you don't answer them. Do not write your name on the sheet. When you have finished, put it face-down on your desk. When everyone is done, I will come around with an envelope for you to put your sheet in. *[If necessary for age group, read questions and responses to students.]*

Iowa STEM Scale-Up Program
Student Survey
Cover Page

IMPORTANT: This form must accompany any packets of student surveys you send. This form is the only way we can document and track if you have completed the student survey portion of the evaluation.

School/Club/Organization Name:_____

If school-based, name of school district:_____

Name of person submitting questionnaires:_____

Email:_____

We will send you an email confirmation when we receive your surveys.

Telephone number:_____

Address (street, city, ZIP):_____

_____

County:_____

Iowa STEM Region (NW, NC, NE, SW, SC, SE):_____

Name of STEM Scale-Up Program:_____

Number of student participants:_____

Number of completed questionnaires:_____

Please return forms to:

UNI CSBR
Attn: Iowa STEM Monitoring Project
Cedar Falls, IA 50614-0402

Student Survey

Scale-Up STEM Interest (POST) – Middle/High School Range

The following questions are about your interest in science, technology, engineering, and mathematics. You do not have to answer the questions and you can stop at any time. If you decide to stop, your grades will not be affected and you will not face any consequences. Please sit quietly until your classmates are finished.

1. Are you… _____ Male (Boy) _____ Female (Girl)

2. How old are you? _____ Years

Compared to the beginning of the (semester/program/etc.), are you more interested, just as interested, or less interested now in each of the following?

Place an "X" in the box to mark your answer.

	More interested now than before	Just as interested now as before	Less interested now than before
3. Math			
4. Science			
5. Computers and technology			

6. Compared to the beginning of the (semester/program/etc.), are you more interested, just as interested, or less interested in designing, creating, and building machines and devices (also called engineering)?

   1 More interested now than before
   2 Just as interested now as before
   3 Less interested now than before

7. Compared to the beginning of the (semester/program/etc.) are you more interested, just as interested, or less interested in someday having a job that uses skills in science, technology, math, or engineering?

   1 More interested now than before
   2 Just as interested now as before
   3 Less interested now than before

Student Survey

Scale-Up STEM Interest (POST) – Elementary School Range

These questions ask about your interest in science, computers, and math. You do not have to answer the questions. You can stop at any time. If you decide to stop, nothing bad will happen. If you choose not to answer the questions, please sit quietly until everyone is done.

1. Are you… _____ Boy _____ Girl

2. How old are you? _____ Years

3. Think about how interested you were in math in the fall. Are you more interested in math now, just as interested in math now, or less interested in math now?

   1 I am more interested now
   2 I am just as interested now
   3 I am less interested now

4. Think about how interested you were in science in the fall. Are you more interested in science now, just as interested in science now, or less interested in science now?

   1 I am more interested now
   2 I am just as interested now
   3 I am less interested now

5. Think about how interested you were in using computers in the fall. Are you more interested in using computers now, just as interested in using computers now, or less interested in using computers now?

   1 I am more interested now
   2 I am just as interested now
   3 I am less interested now

6. Think about how interested you were in designing, creating, and building things in the fall. Are you more interested in creating things now, just as interested in creating things now, or less interested in creating things now?

   1 I am more interested now
   2 I am just as interested now
   3 I am less interested now

7. Are you more interested now, just as interested, or less interested in having a job that uses science, math, and computer skills?

   1 I am more interested now
   2 I am just as interested now
   3 I am less interested now

Student Survey

Scale-Up STEM Interest (POST) – Early Elementary School Range

These questions are about your interest in science, computers, and math. You do not have to answer the questions. You can stop at any time. If you decide to stop, nothing bad will happen. If you choose not to answer the questions, please sit quietly until everyone is done.

1. Are you… _____ Boy _____ Girl
2. How old are you? _____ Years
3. Think about how much you liked math in the fall. Do you like math more now, about the same, or less now?

   1 I like it more now

   2 I like it the same now

   3 I like it less now

4. Think about how much you liked science in the fall. Do you like science more now, about the same, or less now?

   1 I like it more now

   2 I like it the same now

   3 I like it less now

5. Think about how much you liked using computers in the fall. Do you like using computers more now, about the same, or less now?

   1 I like it more now

   2 I like it the same now

   3 I like it less now

6. Do you like to design and build things more now, about the same, or less now than you did in the fall?

   1 I like it more now

   2 I like it the same now

   3 I like it less now

7. Are you more interested now, about the same, or less interested in having a job that uses science, math, and computer skills?

   1 I like it more now

   2 I like it the same now

   3 I like it less now