The Art and Science of Asking Meaningful

EVALUATION QUESTIONS

February 16, 2022

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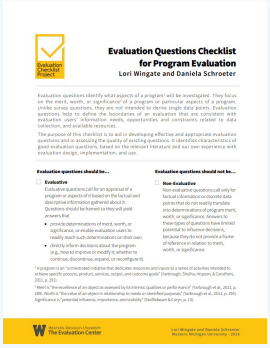

Evaluation Questions Checklist

Recording

Introductions

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Binder

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Behind the Scenes

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Objectives and Agenda

Understand the function and form of evaluation questions

Consult multiple sources to determine the focus of evaluation questions

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UNDERSTAND THE FUNCTION AND FORM OF EVALUATION QUESTIONS

EVALUATION QUESTIONS

are overarching questions about a project's merit, worth, or significance that will be answered based on evidence gathered through the evaluation process.

merit, worth, or significance

What are some synonyms or closely related words

CHAT →

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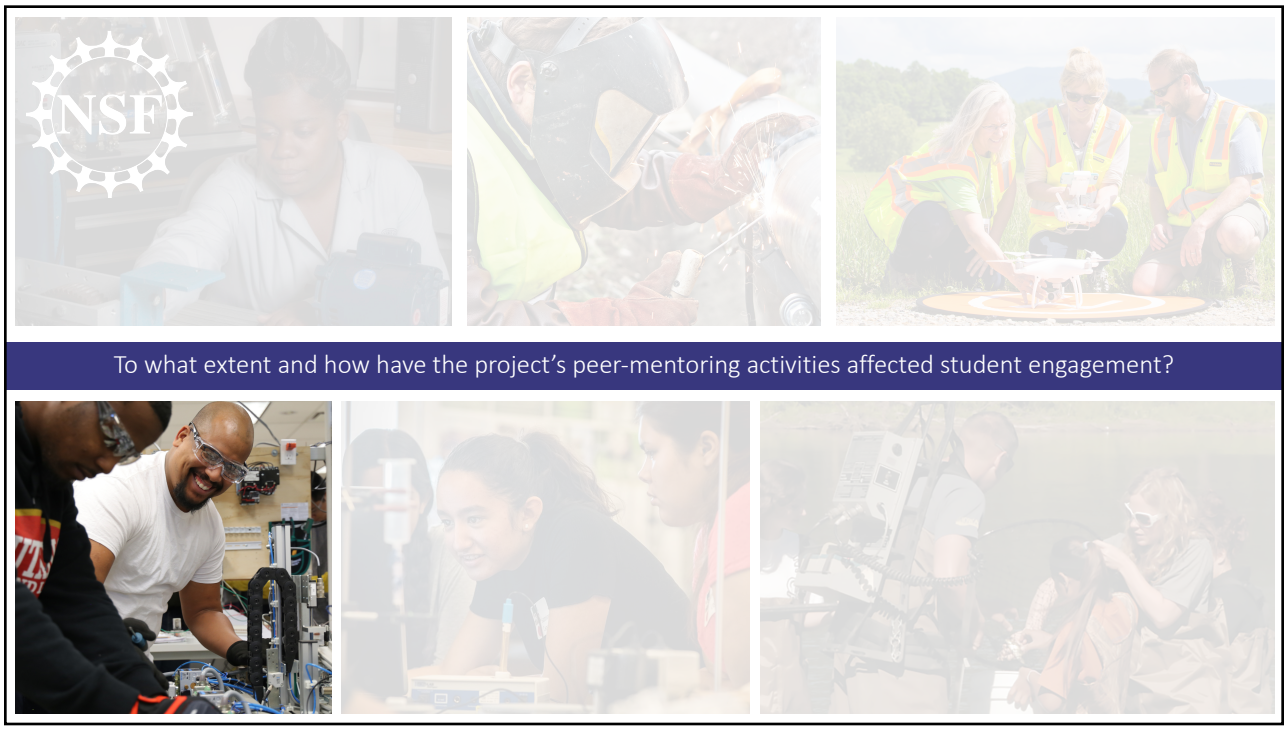

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POLL →

How well aligned with employers' needs are the courses developed by the project?

What aspect of project's quality does this evaluation question point to?

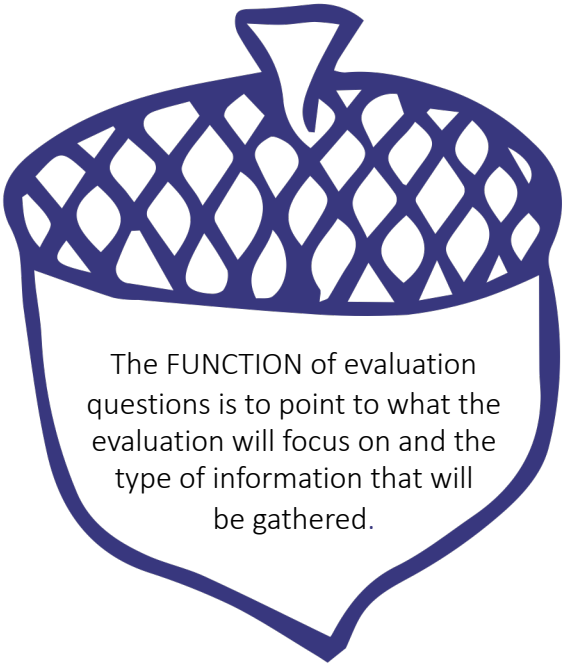
a. Effectiveness in preparing workers for the job market
b. Long-term sustainability of the project
c. Students' satisfaction with their educational experience
d. Responsiveness to industry needs

POLL →

How well aligned with employers' needs are the courses developed by the project?

What kinds of data should be collected to answer this question?

a. Graduation rates
b. Interviews with employers compared with course objectives
c. Historical trends in course enrollment
d. Surveys of students about their experience in the course



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AVOID questions that can be answered with a number.

- How many …?
- What percentage …?
- What is the average …?

AVOID yes-no questions.

- Is the program effective?
- Did the program meet its goals?
- Did the program work?
- Is the program worthwhile?

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Allow for a continuum of possible answers.

- To what extent …?
- To what degree …?
- How effective …?
- What is the quality of …?

How well aligned with employers' needs are the courses developed by the project?

To what extent do professional development participants implement what they learned?

How have the inquiry-based lab activities influenced students' career plans?

To what extent and how have the project's peer-mentoring activities affected student engagement?

To what extent do participating high school teachers increase their disciplinary knowledge and capacity to teach?

How has the initiative affected students' perceptions of high-tech jobs?

Prepare to answer questions in the same terms in which they were asked.

How well aligned…?

- Poorly aligned
- Fairly aligned
- Somewhat aligned
- Mostly aligned
- Completely aligned

Prepare to answer questions in the same terms in which they were asked.

How effective…?

- Not at all effective
- Minimally effective
- Moderately effective
- Very effective
- Extremely effective

Prepare to answer questions in the same terms in which they were asked.

To what extent…?

Not at all

To a minimal extent

To a moderate extent

To a great extent

Prepare to answer questions in the same terms in which they were asked.

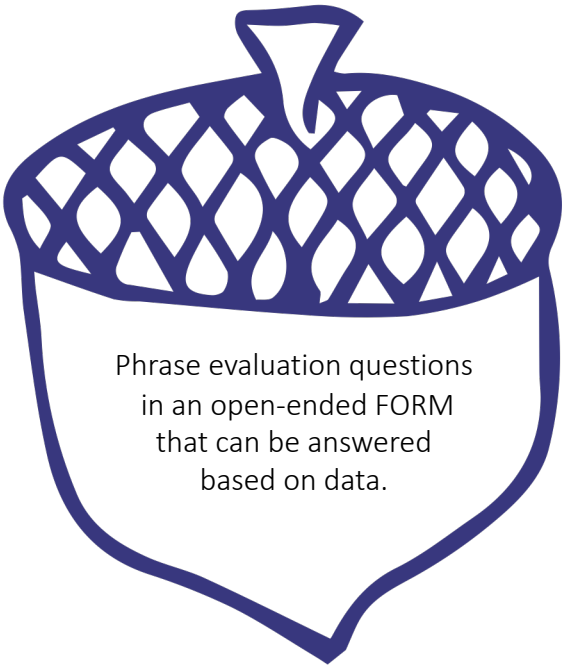
How has the project influenced…?

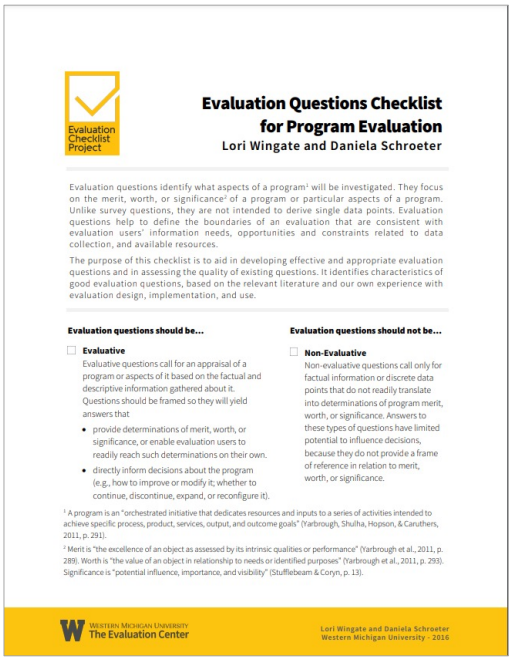
Describe nature, magnitude, and mechanism of change.

Make sure questions are answerable.

CONSIDER:

- Time frame
- What the project can realistically achieve
- Feasibility of collecting adequate evidence





Evaluation Checklist Project

Evaluation Questions Checklist for Program Evaluation

Lori Wingate and Daniela Schroeter

Evaluation questions identify what aspects of a program[1] will be investigated. They focus on the merit, worth, or significance[2] of a program or particular aspects of a program. Unlike survey questions, they are not intended to derive single data points. Evaluation questions help to define the boundaries of an evaluation that are consistent with evaluation users' information needs, opportunities and constraints related to data collection, and available resources.

The purpose of this checklist is to aid in developing effective and appropriate evaluation questions and in assessing the quality of existing questions. It identifies characteristics of good evaluation questions, based on the relevant literature and our own experience with evaluation design, implementation, and use.

Evaluation questions should be...

☐ **Evaluative**
Evaluative questions call for an appraisal of a program or aspects of it based on the factual and descriptive information gathered about it. Questions should be framed so they will yield answers that

- provide determinations of merit, worth, or significance, or enable evaluation users to readily reach such determinations on their own.
- directly inform decisions about the program (e.g., how to improve or modify it; whether to continue, discontinue, expand, or reconfigure it).

Evaluation questions should not be...

☐ **Non-Evaluative**
Non-evaluative questions call only for factual information or discrete data points that do not readily translate into determinations of program merit, worth, or significance. Answers to these types of questions have limited potential to influence decisions, because they do not provide a frame of reference in relation to merit, worth, or significance.

[1] A program is an "orchestrated initiative that dedicates resources and inputs to a series of activities intended to achieve specific process, product, services, output, and outcome goals" (Yarbrough, Shulha, Hopson, & Caruthers, 2011, p. 291).

[2] Merit is "the excellence of an object as assessed by its intrinsic qualities or performance" (Yarbrough et al., 2011, p. 289). Worth is "the value of an object in relationship to needs or identified purposes" (Yarbrough et al., 2011, p. 293). Significance is "potential influence, importance, and visibility" (Stufflebeam & Coryn, p. 13).

Western Michigan University The Evaluation Center

Lori Wingate and Daniela Schroeter
Western Michigan University - 2016

Evaluation questions should be:

- ✓ Evaluative
- ✓ Pertinent
- ✓ Reasonable
- ✓ Specific
- ✓ Answerable
- ✓ Complete

QUESTION BREAK

Use chat box

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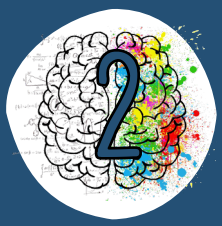
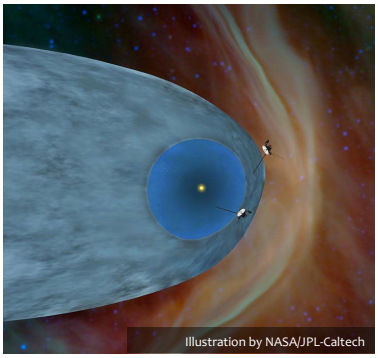
CONSULT MULTIPLE SOURCES TO DETERMINE THE FOCUS OF EVALUATION QUESTIONS





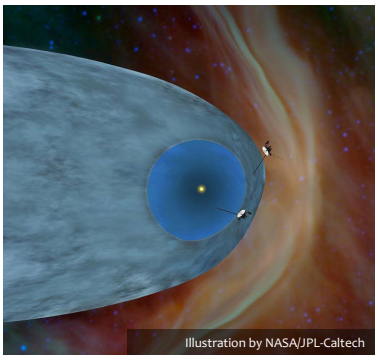
CASE

Development of a Scientific Illustration and Animation AAS Degree at DaVinci Community College

DaVinci Community College will develop an AAS degree program in scientific illustration and animation. A collaboration between the fine arts and STEM faculty, this degree program, these credentials will prepare students to support engineering, technology, and scientific research and development firms with their visual communication needs.

EVALUATION QUESTION SOURCES

PROJECT GOALS



Development of a Scientific Illustration and Animation (SIA) AAS Degree at DaVinci Community College

PROJECT GOALS

1. Design AAS degree program in scientific illustration and animation.
2. Develop an offer two new courses: (1) Introduction to Scientific Illustration and (2) Scientific Illustration and Animation Capstone.
3. Engage industry partners to provide ongoing input on the skills needed to meet their visual communication needs.
4. Conduct outreach activities at local high schools and the regional educational service agency.

Why is it important to determine the extent to which a project meets its goals?

CHAT →

Why is it important to determine the extent to which a project meets its goals?

} ACCOUNTABILITY!

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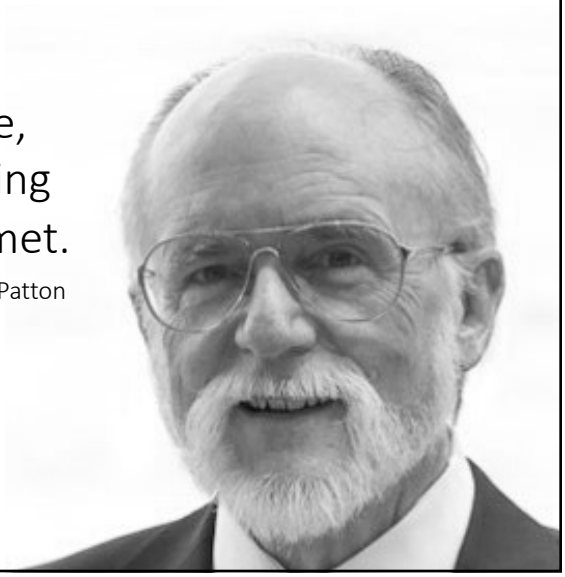
> An evaluation should include, *but not be limited to,* assessing whether stated goals were met.
>
> Michael Quinn Patton



A *strictly* goal-focused evaluation may be problematic due to…

- Unclear project goals
- Overly ambitious goals
- Goals that focus exclusively on activities or outputs

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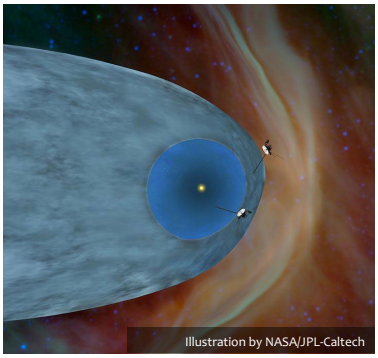

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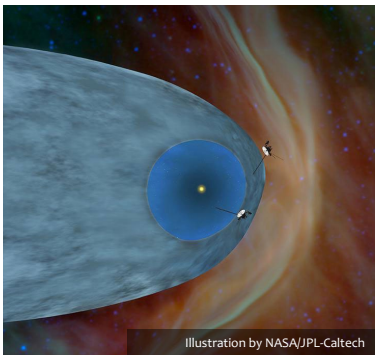

Development of a Scientific Illustration and Animation (SIA) AAS Degree at DaVinci Community College

PROJECT GOALS

1. Design
2. Develop
3. Engage
4. Conduct

WHETHER *these activity-focused goals were met can be demonstrated through basic annual reports prepared by project staff*

The ***QUALITY*** *and* ***IMPACT*** *of these activities should be established though evaluation*

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POLL →

Which question is about either the **quality** or **impact** of outreach events?

a. How many outreach events were held each semester?
b. How effective were the outreach events in attracting new students to the SIA program?
c. Were the outreach events conducted as planned?

Development of a Scientific Illustration and Animation (SIA) AAS Degree at DaVinci Community College

PROJECT GOALS

1. Design AAS degree program in Scientific Illustration and Animation
2. Develop an offer two new courses: (1) Introduction to Scientific Illustration and (2) Scientific Illustration and Animation Capstone
3. Engage industry partners to provide ongoing input the skills most needed to meet their visual communication needs
4. Conduct outreach activities at local high schools and regional educational service agencies

How well aligned is the SIA curriculum to the needs of industry? ←

How effective were the outreach events in attracting new students to the SIA program? ←

STAKEHOLDERS

What do you hope to learn from the evaluation?

What kinds of information will you need to inform your decisions about the project?

How will you use information you obtain from this evaluation?

Are there aspects of the project you are more or less certain about?

DEAN

We've never done a truly interdisciplinary program like this.

I want to know about the lessons learned that we can apply to the development of other new disciplinary initiatives?

What are the lessons learned in developing the SIA program that could be applied to other interdisciplinary initiatives?

FACULTY MEMBER

I'd like to know program equitably serves students of all different genders, races, and ethnicities.

To what extent are program opportunities and benefits equitably distributed?

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SUBJECT MATTER EXPERT

I'm so excited about this project. I think we should aim high.

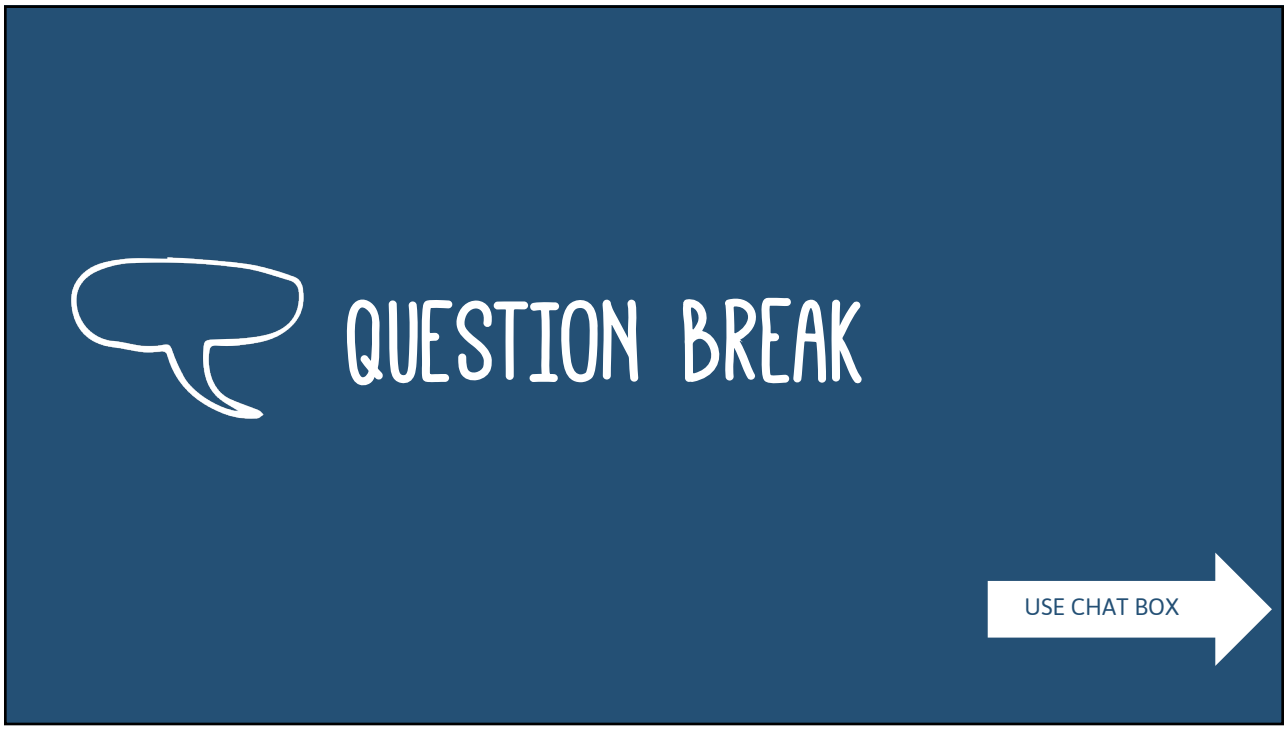
I'd like to know if this is the best program of its kind at the two-year college level.

Let's talk about that…

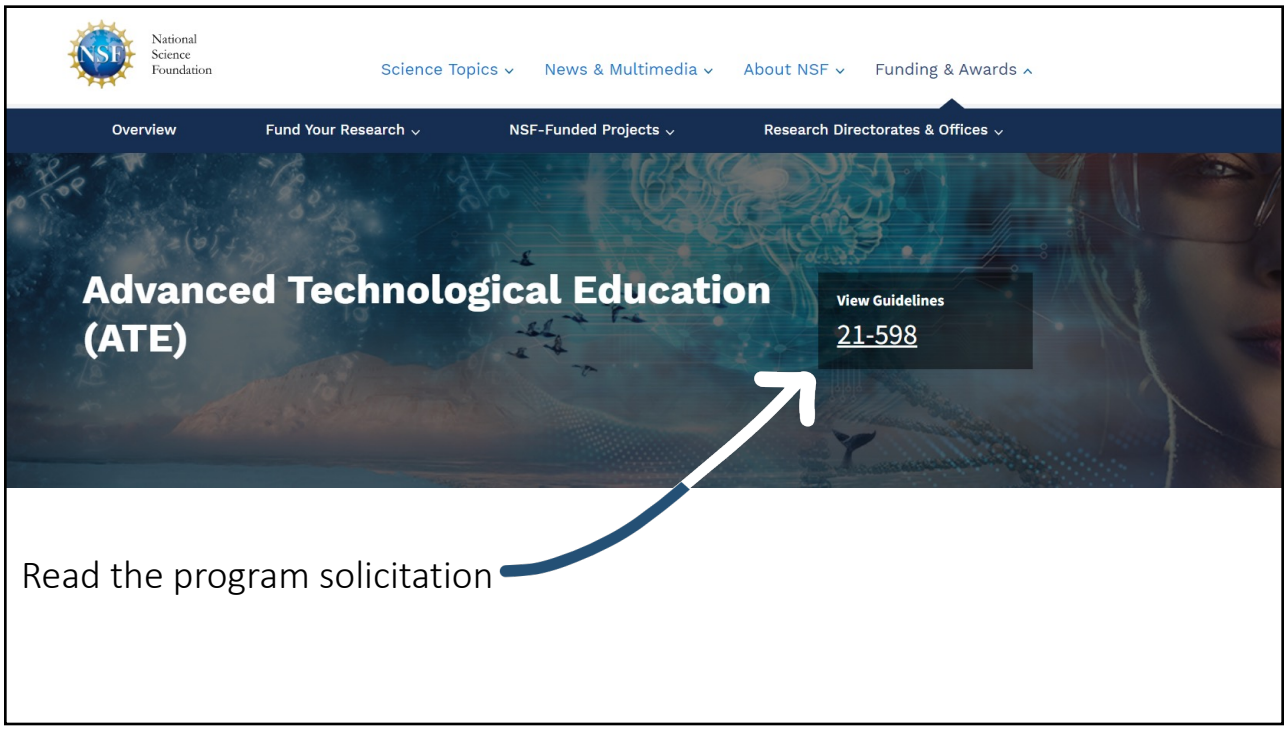
- What does "best" mean to you?
- What data would we need to answer that question?
- Will the answer inform any future actions?

What are the lessons learned in developing the SIA program that could be applied to other interdisciplinary initiatives?

To what extent are program opportunities and benefits equitably distributed?


QUESTION BREAK
USE CHAT BOX

SPONSOR PRIORITIES



"The evaluation should address both project implementation and outcomes."

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process/implementation and outcomes

Content: Accuracy and appropriateness for audience

Products: Usability, accessibility

Reach: Number of people reached, depth of engagement

Satisfaction: Participants' perceptions of quality, relevance, and value

process/implementation and outcomes

Content: Accuracy and appropriateness for audience

Products: Usability, accessibility

Reach: Number of people reached, depth of engagement

Satisfaction: Participants' perceptions of quality, relevance, and value

CHANGES WITHIN

Individuals: Students, faculty, staff

Organizations: Colleges and their partners

Communities: Professional, geographic

Systems: Educational pipelines, career pathways

Workforce: Worker supply, skill level

process/implementation and outcomes

Content: Accuracy and appropriateness for audience

Products: Usability, accessibility

Reach: Number of people reached, depth of engagement

Satisfaction: Participants' perceptions of quality, relevance, and value

CHANGES WITHIN

Individuals: Students, faculty, staff

Organizations: Colleges and their partners

Communities: Professional, geographic

Systems: Educational pipelines, career pathways

Workforce: Worker supply, skill level

Equity, diversity, and inclusion:
Distribution of opportunities and benefits

To what extent are program graduates successful in obtaining jobs that utilize the knowledge and skills they acquired through the program?

How successful is the SIA program in in graduating students?

Program Development and Improvement

"It is expected that data on student completion and initial job placement will be gathered and reported on in annual and final reports."

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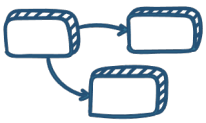

PROJECT LOGIC MODEL

Development of a Scientific Illustration and Animation AAS Degree at DaVinci Community College

Activities	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
Develop and submit proposal for an **AAS degree** in scientific illustration and animation to state commission on higher education.			
Design two new courses: (1) Introduction to Scientific Illustration and (2) Scientific Illustration and Animation Capstone.			
Engage industry partners to identify the skills needed to meet their visual communication needs.			
Conduct outreach activities at high schools and regional educational service agency.			

These are the project's activity-focused goals

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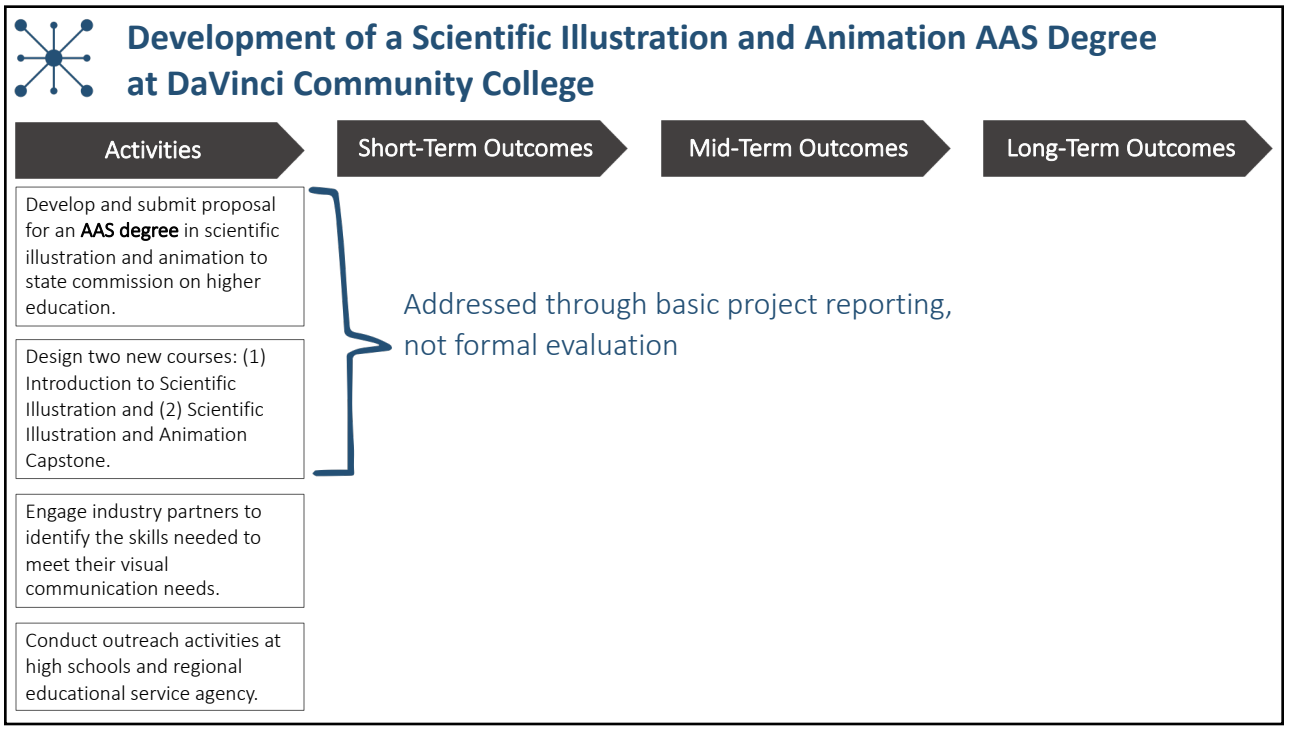

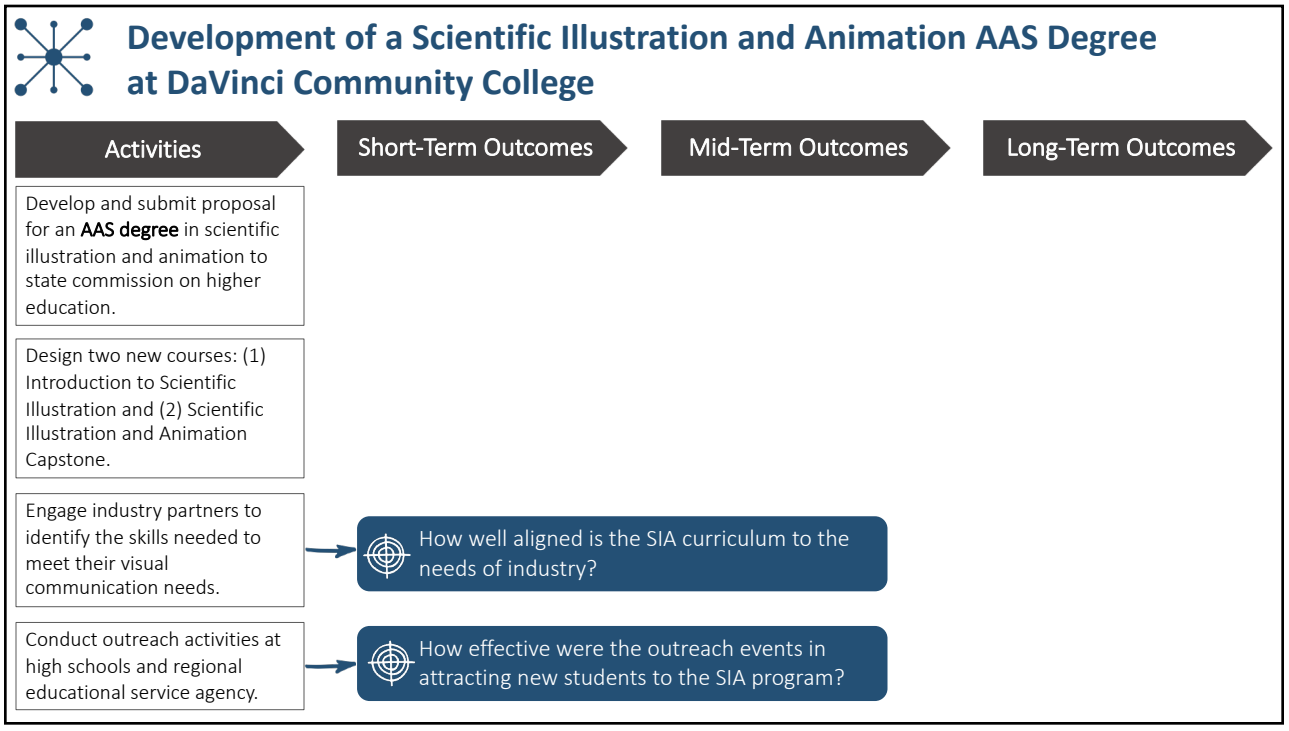

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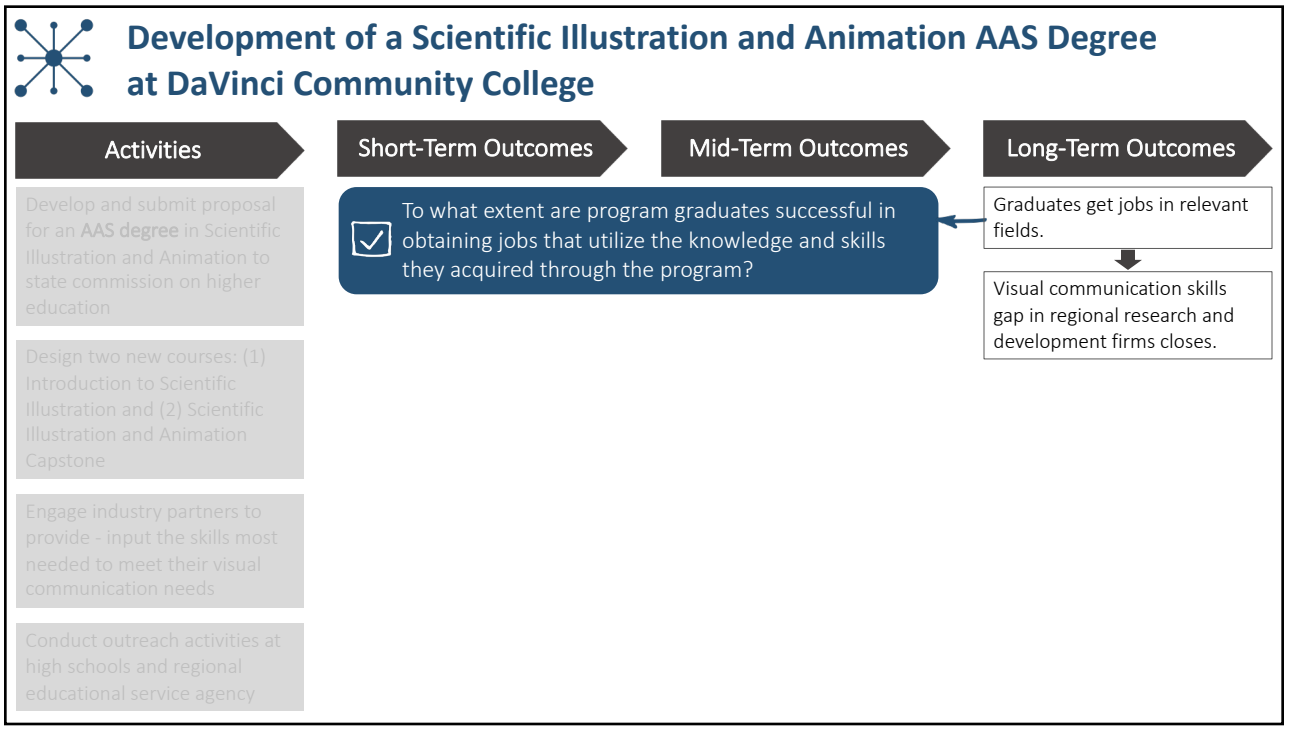
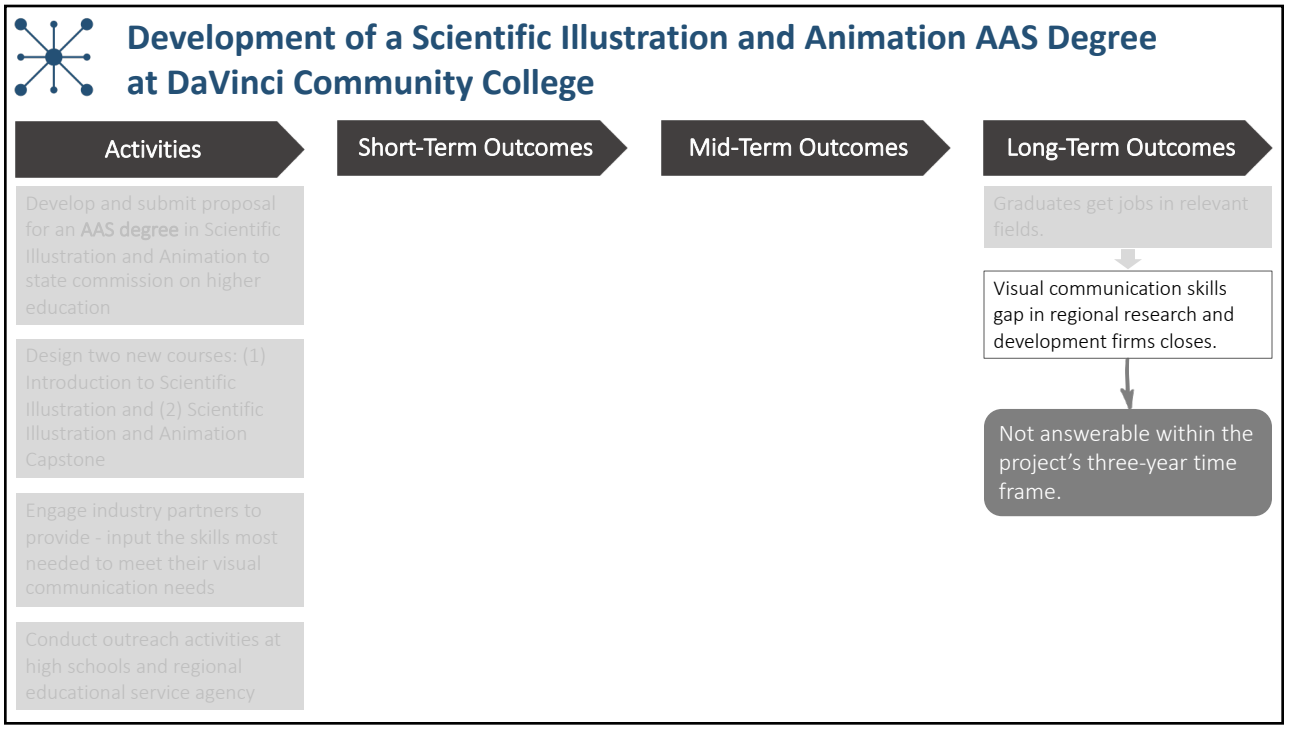

Development of a Scientific Illustration and Animation AAS Degree at DaVinci Community College
Activities
Short-Term Outcomes
Mid-Term Outcomes
Long-Term Outcomes
Develop and submit proposal for an AAS degree in Scientific Illustration and Animation to state commission on higher education
Design two new courses: (1) Introduction to Scientific Illustration and (2) Scientific Illustration and Animation Capstone
Engage industry partners to provide - input the skills most needed to meet their visual communication needs
Conduct outreach activities at high schools and regional educational service agency
To what extent are program graduates successful in obtaining jobs that utilize the knowledge and skills they acquired through the program?
Graduates get jobs in relevant fields.
Visual communication skills gap in regional research and development firms closes.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Activities
Short-Term Outcomes
Mid-Term Outcomes
Long-Term Outcomes
Develop and submit proposal for an AAS degree in Scientific Illustration and Animation to state commission on higher education
Design two new courses: (1) Introduction to Scientific Illustration and (2) Scientific Illustration and Animation Capstone
Engage industry partners to provide - input the skills most needed to meet their visual communication needs
Conduct outreach activities at high schools and regional educational service agency
Graduates get jobs in relevant fields.
Visual communication skills gap in regional research and development firms closes.
Not answerable within the project's three-year time frame.

Development of a Scientific Illustration and Animation AAS Degree at DaVinci Community College

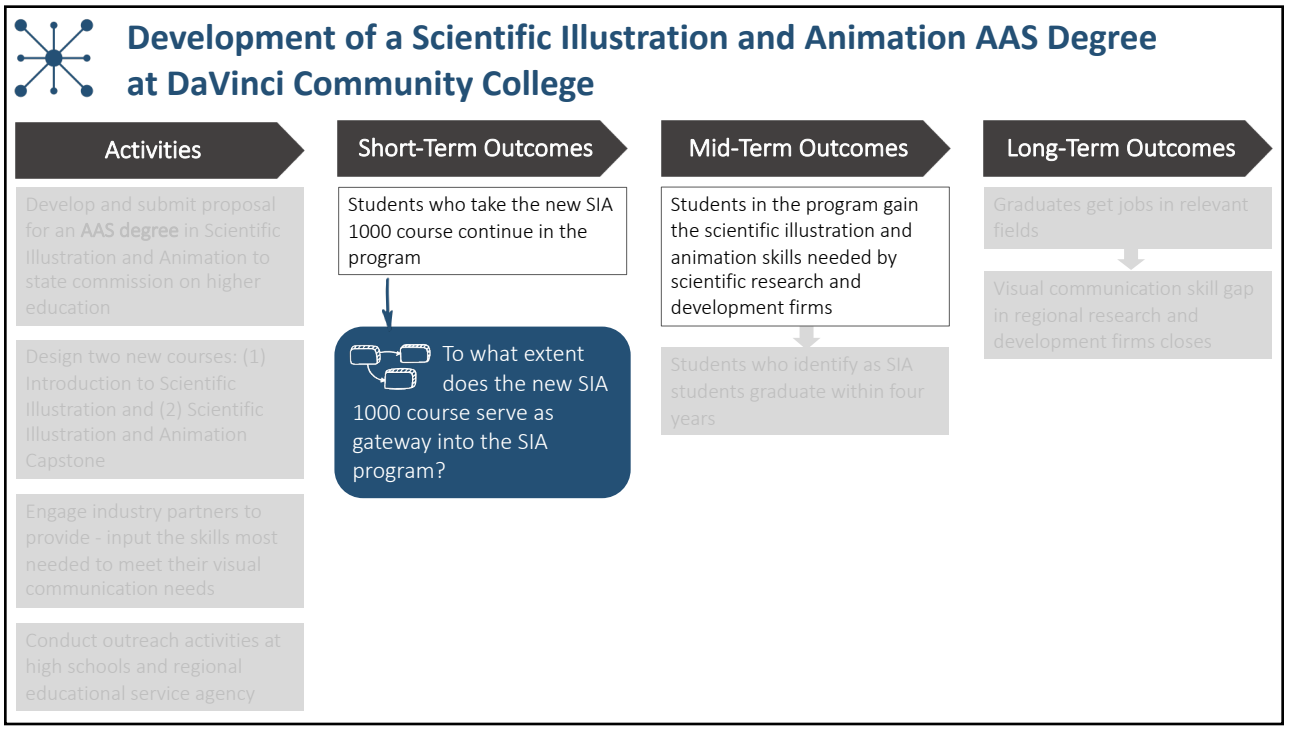
Activities	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
Develop and submit proposal for an AAS degree in Scientific Illustration and Animation to state commission on higher education	Students who take the new SIA 1000 course continue in the program.	Students in the program gain the scientific illustration and animation skills needed by scientific research and development firms.	Graduates get jobs in relevant fields
Design two new courses: (1) Introduction to Scientific Illustration and (2) Scientific Illustration and Animation Capstone		Students who identify as SIA students graduate within four years.	Visual communication skill gap in regional research and development firms closes
Engage industry partners to provide - input the skills most needed to meet their visual communication needs		How successful is the SIA program in graduating students?	
Conduct outreach activities at high schools and regional educational service agency			

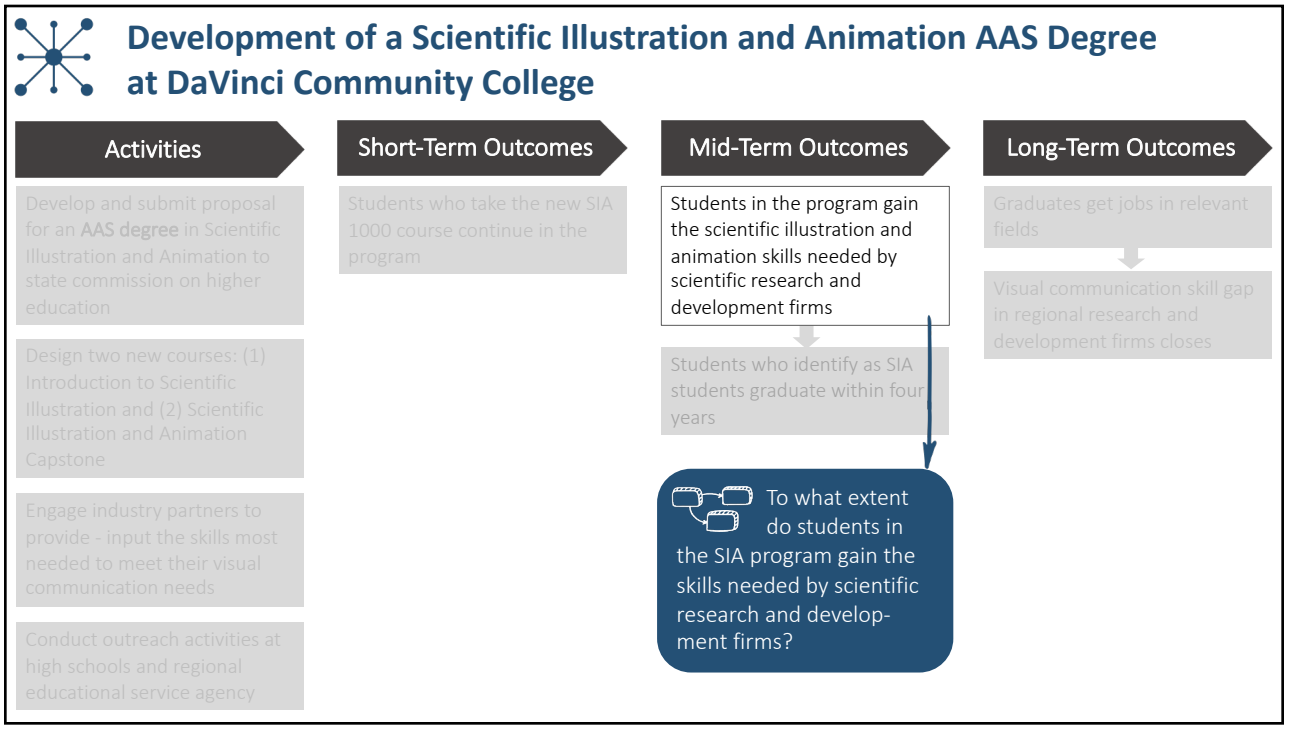
POLL →

Students who take the new SIA 1000 course continue in the program

Which evaluation question best addresses this short-term outcome?

a. To what extent does the new SIA 1000 course serve as gateway into the SIA program?
b. How do students perform in the new SIA 1000 course compare with other intro courses?
c. What is the completion rate for the new SIA 1000 course?





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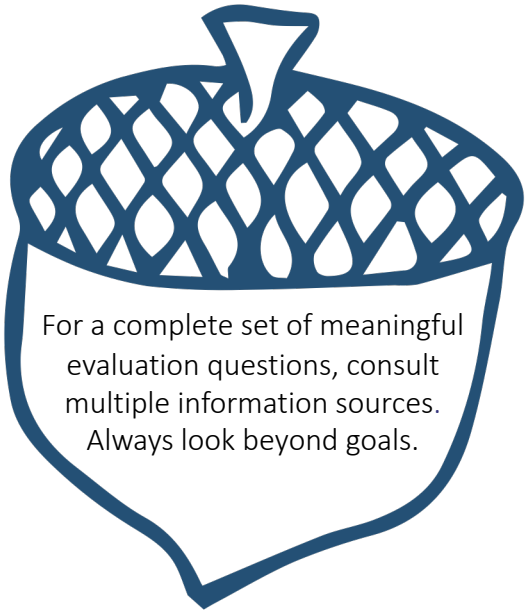
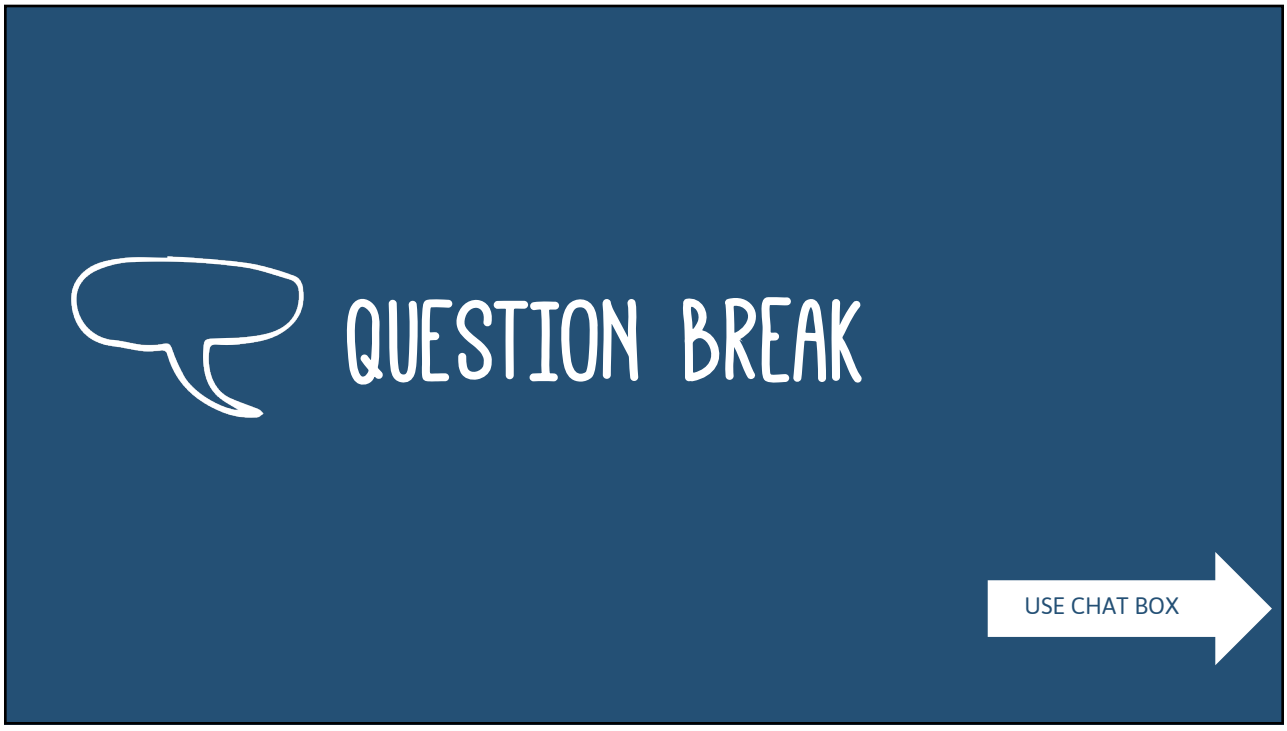
Project Evaluation Questions

1. How well aligned is the SIA curriculum to the needs of industry?
2. How effective were the outreach events in attracting new students to the SIA program?
3. To what extent does the new SIA 1000 course serve as gateway into the SIA program?
4. To what extent do students in the program gain the scientific illustration and animation skills needed by scientific research and development skills?
5. How successful is the SIA program in graduating students?
6. To what extent are program graduates successful in obtaining jobs that utilize the knowledge and skills they acquired through the program?
7. What were the lessons learned in developing SIA program that could be applied to other interdisciplinary initiatives?
8. To what extent are program opportunities and benefits equitably distributed?





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