



STEAM
CONNECT

Evaluation Toolkit Dec 2023

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Teacher Perception of STEAMCONNECT Template



Connections
students, teachers,
schools, others,
regional, international

Teacher Perception of STEAMCONNECT Process Experience

Testimonials
students, teachers,
schools, others,
regional, international

Evaluation Toolkit

1 Connections (students, teachers, schools, others, regional, international)

2 Teacher perception of STEAMCONNECT template (Qaire)

3 Teacher perception of their STEAMCONNECT process experience (Qaire)

4 Testimonials

Issues:

1 Additional requirements to meet project proposal?

2 Format: Quantitative & Qualitative mix of questions to cater for both STEAM learner teacher and “expert teachers who will all score 5” (Option to leave out scores or Keep in scores to stimulate thinking?)

3 International Collaboration questions

Summary: Share questionnaires so partners can play/add questions

Evaluation: Austria



Connections (students, teachers, schools, others, regional, international)

Summary: (example activity)

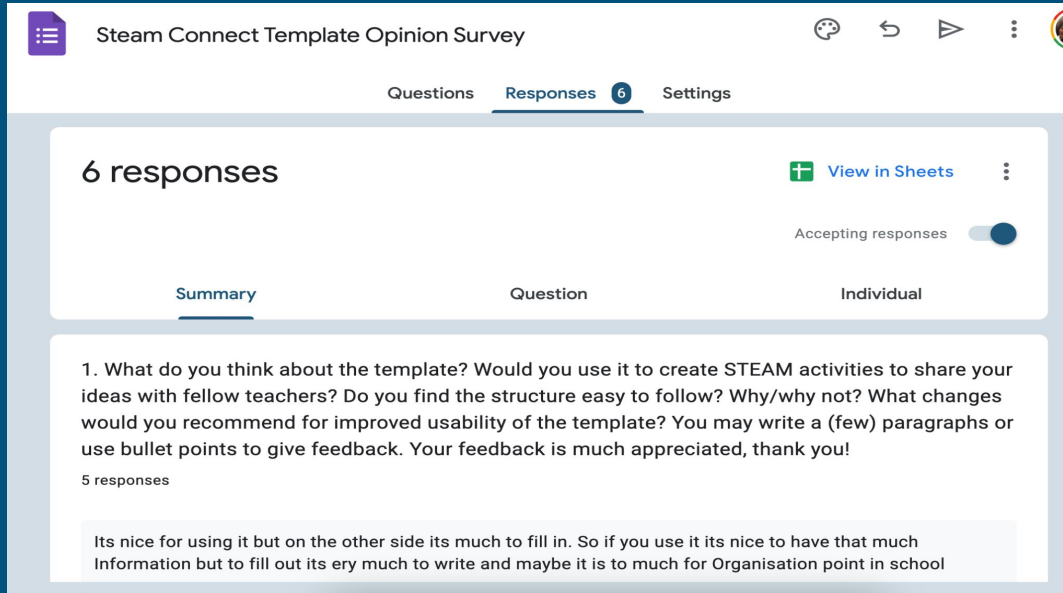
90 attendees inc: 50 students, 30 parents and families and 3 teachers (collaboration with 2nd school plus 5 teachers), industrial partner

Activity Description: project-based collaborative interdisciplinary STEAM learning, first settlement on Mars, what are the problems? (How and when to get there? Where to live? What can you eat/grow? What's the weather like? etc.)

Conclusion:

Remarkable “Connect” starting from one class to school to two schools extending to parents and families and local industry

Teacher Perception of Template



The screenshot shows a Google Forms interface for a survey titled "Steam Connect Template Opinion Survey". The "Responses" tab is active, showing 6 responses. A "View in Sheets" button is visible. The survey question is: "1. What do you think about the template? Would you use it to create STEAM activities to share your ideas with fellow teachers? Do you find the structure easy to follow? Why/why not? What changes would you recommend for improved usability of the template? You may write a (few) paragraphs or use bullet points to give feedback. Your feedback is much appreciated, thank you!". Below the question, it says "5 responses" and a text box contains the following feedback: "Its nice for using it but on the other side its much to fill in. So if you use it its nice to have that much Information but to fill out its ery much to write and maybe it is to much for Organisation point in school".

Steam Connect Template Opinion Survey

Questions Responses **6** Settings

6 responses [View in Sheets](#)

Accepting responses

Summary Question Individual

1. What do you think about the template? Would you use it to create STEAM activities to share your ideas with fellow teachers? Do you find the structure easy to follow? Why/why not? What changes would you recommend for improved usability of the template? You may write a (few) paragraphs or use bullet points to give feedback. Your feedback is much appreciated, thank you!

5 responses

Its nice for using it but on the other side its much to fill in. So if you use it its nice to have that much Information but to fill out its ery much to write and maybe it is to much for Organisation point in school



Its nice for using it but on the other side its much to fill in. So if you use it its nice to have that much Information but to fill out its ery much to write and maybe it is to much for Organisation point in school

Yes, I would you use the template to create STEAM activities to share my ideas with fellow teachers. I think it is very clear and it offers an easy way to log the details of every hour in. I find the structure easy to follow, because the main points are very clear. I would not recommend any changes of the template itself, but for improved usability it would be easier to to fill the information into a Word-document than into a pdf, so the teachers do not have to write it by hand.

Expected learning outcomes (not equal to objectives) could be part - photos of learning products give an insight; distinction of learning objectives ... topic connected objectives and 21st century skills - but topic and longterm, why are topic related objectives not longterm?

I like the open format of it. I think so its possible to get the real impressions of the students opinions. You are doing a great job!!

In my opinion, it is very clearly laid out and you have a good overview. It is not complicated to understand and use. It can be very helpful when designing STEAM lessons as well as during them.

*

To what extent do you feel working with other teachers in your school on STEAM activities is beneficial?

Very low 1 2 3 4 5 Very high

*

To what extent do you feel working with the community (parents, local commerce, universities etc) is beneficial for STEAM activities

Very low 1 2 3 4 5 Very high

Please give your thoughts on why you scored as you did, in PARTICULAR where your views have changed as a result of the activity.

1 response

The definit chane I have: networking between colleagues, parents and schools. I will have more trust in myself, my colleagues and families. It was a success! Networking with schools can be difficult though.

Tell us about what worked well and things that could be improved

1 response

It went quite well, if we had even more time we could have made even more. Improvement: we need more room between the stations. shorter presentations, even more interactive tasks to make the visitors more involved, more colleagues should take part

Teacher Perception of their STEAM Experience: Variants to capture the same data

1 As-is if you have a wide range of teacher expertise

2 Omit scores and ask for a sentence response instead if you have expert teachers who will score 5 to everything

*To what extent do you feel that communication and collaboration skills are important in technological activities ?
(Explain in a sentence or two)*

3 Use questionnaire before and after with teachers OR

4 Use a perception - expectation variant after the experience:

To what extent do you feel that communication and collaboration skills are important in technological activities ?

What did you feel before this event?

1	2	3	4	5
Very low	Low	Average	Quite high	Very high

What do you feel now?

1	2	3	4	5
Very low	Low	Average	Quite high	Very high

Testimonials

Networking across federal states: Gymnasium Schillerstraße in Feldkirch (Vorarlberg) cooperates with practical middle school in Innsbruck (Tirol) as part of "STEAM-Connect"

In mid-May, students and teachers from the Gymnasium Schillerstraße in Feldkirch visited the practical middle school of the PH Tirol. Together, the young people spent a day dealing with various aspects of mathematics, computer science, natural sciences, art and technology – in other words MINKT. The teachers from Vorarlberg gained methodological knowledge from Michael E. Luxner in order to be able to implement their own projects.

“The encounter made it clear how MINKT can network schools, how projects can mesh, how synergies can be used and how knowledge and experience can be shared. These are forward-looking approaches that show: **Education can overcome borders, open doors and minds, and create spaces for communication,**” says class teacher Michael E. Luxner, who implemented the cooperation with Vorarlberg.

This cooperation was supported on a larger scale: Martin André, teacher and researcher for didactics of mathematics in primary and secondary school at the PH Tirol, as well as the Austrian coordinator of the project were also collaborators of the international project "STEAM-Connect". Tony Houghton and team member Andrea Mate-Klatyik from the Johannes Kepler University Linz came to the practical middle school. **The "STEAM-Connect" project has set itself the task of bringing together people interested in MINKT.** Within the framework of STEAM - i.e. Science, Technology, Engineering and Mathematics - the lessons should be made more inspiring and meaningful.

Gregor Örley, director of the practical middle school, sees MINKT as a concept for the future at the practical middle school: "First of all: the K in MIN|K|T at the practical middle school stands for "art" and is out of the question. Art brings something different to solution-oriented learning than combining facts, as the combination of technology and science can do well. At the practical middle school, I see MINKT as a growing concept that encourages students to think inquiringly and look for solutions through impulses from the real world (visits, excursions). The searching attitude then links thinking from different disciplines. ***As a model school, we want to formulate a concept in the medium term that sees other schools as beneficiaries in terms of dissemination, but also as learning partners who can help us further. Networking is therefore on the agenda for the next few years.***"

Regine Mathies, Rector of the PH Tirol particularly appreciates the networking and connection between theory and practice: "The substantive networking between the university and our practical schools is very important to us against the background of a research-led theory-practice interlocking. ***The fact that this networking is increasing in quality through partnerships with other schools is particularly gratifying and a further step in the development towards model and research schools.*** In this context, special thanks go to the director of the PMS and especially to the committed teachers who are implementing a 'lighthouse project' in the specific case of the colonization of Mars."

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