

Towards equitable makerspaces

Quick Check Surveys



Quick Check Surveys - equitable youth outcomes

Guidelines for conducting Quick Check Surveys

The Making Spaces project emphasises equitable outcomes for young people. In order to gain insight into the extent to which equitable outcomes are being achieved by makerspaces, we have developed Quick Check Surveys which can be used with participating young people to gather feedback before and after a multi-session programme. These surveys cover:

- Capital and skills (STEM skills and knowledge, soft skills)
- Educational and occupational trajectories (aspirations, job progression, new futures, progression in formal and informal learning)
- Agency and social action (personal agency, challenging injustices)
- Identity (increased confidence, feeling valued, broader understanding of STEM identities, connections to STEM)
- Wellbeing.

The survey contains four sections: equitable outcomes (5 items), STEM skills (6 items), general skills (6 items), and demographics. The purpose of this is to get a snapshot of the impact of your programme/intervention on young people's equitable outcomes. Conducting the same survey at the beginning and end of your programme can help gain a sense of this impact.

In addition to these four sections, a further section dives into more depth on equitable outcomes (12 items) – these questions can be asked at the end of the intervention. See the table below for more detail.

The survey should be completed individually, rather than in groups, in order to capture the perceptions of each young person directly. However, you can support young people in understanding the questions, especially in terms of what the items refer to. You may also want to read the questions to the group. We suggest that the pre-survey be done before or after the first session, and the post-survey (the same questions as the pre-survey, plus the additional questions) after the final session. There is a space at the bottom of each page where each young person can put their initials. This will allow you to match responses from before and after. However, if this is too intrusive for the young people you work with, please remove or instruct them to leave the space blank.

Reflecting on responses

There are no right or wrong answers to the survey – the intention is to use the surveys to help you consider where your programme seems to be doing well and what areas of your practice may need further attention. You may choose to focus on individual items, or you may wish to look at groups of items corresponding to particular outcome areas.

If having a numerical summary would be helpful, a simple approach would be to calculate the proportions of respondents agreeing/strongly agreeing (or feeling confident/very confident) with each item. For instance, 20 young people respond to an item as follows: 5 strongly agree, 7 agree, 3 neither, 3 disagree, 1 strongly disagrees and one prefers not to say. 12 of 20, or 60% agree/strongly agree. By comparing this proportion among different items, you can gain both a sense of how agreement shifts from pre- to post-survey (for items that are repeated), or how young people are responding in different areas.

Outcome areas and questions

| Outcome area | Further detail | Questions |
|---|--|---|
| STEM and general capital and skills* | STEM skills and knowledge, general skills (e.g. communication, teamwork, social skills) and capital (e.g. networks) | <p>Q6: Confidence in STEM skills (maths, engineering & construction, digital tech & machinery), computing, science, general STEM skills</p> <p>Q7: Confidence in broader skills (art & design, personal skills, teamwork, social skills, thinking skills, job & career skills)</p> <p>Post-only:</p> <p>Q8: Through this programme I have met people I can ask for help in finding new training, education, or work opportunities (if applicable).</p> <p>Q9: I have developed new skills and/or contacts in this programme that will help me to access future training, education, or work.</p> |
| STEM and general educational and occupational trajectories | New futures/aspirations, improved progression in formal and informal education, job progression | <p>Q2: I feel confident I will get a good job in the future.</p> <p>Post-only:</p> <p>Q10: The things I have learned in the programme will help me in the future.</p> <p>Q11: I have become more interested in studying, training, or pursuing jobs related to science, technology or engineering in the future.</p> <p>Q12: Coming to the programme has helped me do better in school.</p> |
| Agency and social action | Increased personal agency, using STEM to challenge injustices and/or benefit community | <p>Q1: I often make or do things that help people in my community or wider society.</p> <p>Post-only:</p> <p>Q13: In the programme, I did and/or made things that were meaningful to me.</p> <p>Q14: Programme activities were focused on challenging inequities in society.</p> |
| Identity (STEM and general) | Increased confidence, feeling recognised and valued, sense of community, broadened views of STEM, stronger STEM identity | <p>Q3: People like me do science, computing or engineering activities or jobs.</p> <p>Q4: Other people think I am good at science, computing or engineering.</p> <p>Post-only:</p> <p>Q15: Doing this programme has increased my self-confidence.</p> <p>Q16: I feel my ideas, experiences and views were valued during the programme.</p> <p>Q17: The programme has broadened my ideas about who does science, technology and/or engineering.</p> <p>Q18: The programme has helped me feel more connected to science, technology and/or engineering.</p> |
| Wider wellbeing | Improved mental health | <p>Q5: I feel well supported in my life and wellbeing.</p> <p>Post-only:</p> <p>Q19: Coming to the programme has supported my mental health and wellbeing.</p> |

* Some of the skills, particularly STEM skills, may not be addressed in your programme. In this instance, those items can be removed – or left in if the information would be useful to you.

Quick Check Survey - equitable youth outcomes

Please use this form to tell us a bit about you and your experiences. This will help us find ways to make activities in your space even better! There are no right or wrong answers. We just want to know what you think!

(Please put your initials at the bottom of each page.)

Which makerspace are you participating in?

How much do you agree or disagree with the following statements? (Tick the appropriate box)

| About you | Strongly disagree | Disagree | Neither agree or disagree | Agree | Strongly agree | Prefer not to say |
|--|-------------------|----------|---------------------------|-------|----------------|-------------------|
| I often make or do things that help people in my community or wider society. | | | | | | |
| I feel confident I will get a good job in the future. | | | | | | |
| People like me do science, computing or engineering activities or jobs. | | | | | | |
| Other people think I am good at science, computing or engineering. | | | | | | |
| I feel well supported in my life and wellbeing. | | | | | | |

Below are some different types of skills. How confident do you currently feel with each of them? (Tick the appropriate box)

| Your skills | Not at all confident | Not confident | In the middle | Confident | Very confident |
|--|----------------------|---------------|---------------|-----------|----------------|
| Maths skills – e.g. doing sums, calculating fractions, measuring, using a ruler, weighing/using scales, budgeting | | | | | |
| Engineering and construction skills – e.g. using building tools (T-square, utility knife, belt sander, glue, hammer) and materials (cardboard, wood) | | | | | |

Initials:

Your skills

| | Not at all confident | Not confident | In the middle | Confident | Very confident |
|--|----------------------|---------------|---------------|-----------|----------------|
| Using digital technology and machinery – e.g. digital embroidery, vinyl cutter, heat press, laser cutter, Spheros, 3D printer, 3D modelling, digital manufacturing | | | | | |
| Computing skills – e.g. coding, using software (Inkscape, Arduino, Tinkercad), robotics | | | | | |
| Science skills – e.g. electronics/electricity (making circuits, using sensors), using lab equipment (microscopes etc.) | | | | | |
| General skills – e.g. trial and error, design thinking, problem solving | | | | | |
| Art and design – e.g. painting, graphic design, making, crafting, working with different materials, being creative | | | | | |
| Personal skills – e.g. communication, organisation, showing initiative, time management, paying attention, completing tasks, self-expression, self-reflection | | | | | |
| Working with others – e.g. teamwork, presenting, speaking in a group | | | | | |
| Socialising and making friends | | | | | |
| Thinking creatively, imaginatively and/or critically | | | | | |
| Job and career skills – e.g. CV writing, interview preparation, job searching, writing cover letters | | | | | |

Initials:

More about you

What are you hoping to get out of this programme/course? (e.g. make new friends; learn about science, technology or engineering; job skills; make a difference; have fun; something else?)

How old are you?

- 6-9 years
- 10-14 years
- 15-19 years
- 20-24 years
- 25-30 years

How do you self-identify in terms of gender?

- Female
- Male
- Describe in another way _____
- Prefer not to say

Do you identify as having a disability?

- Yes _____
- No
- Don't know
- Prefer not to say

How long have you been coming to sessions at this space? (Please select ONE)

- This is my first session
- Less than a month
- 1-3 months
- 7 months - 1 year
- 1-3 years
- More than 3 years

How did you find out about this programme? (Please select all that apply)

- School/teacher/other professional
- Friends
- Parents or other family members
- Advertisement (e.g. flyer)
- Other organisation (job centre/other charity, etc.)
- Social media

Please tell us your name

First name(s)

Last name

Post-intervention: Additionally reflect on the programme you participated in

How much do you agree or disagree with the following statements about the programme that you participated in? (Tick the appropriate box)

| | Strongly disagree | Disagree | Neither agree or disagree | Agree | Strongly agree | Prefer not to say |
|--|-------------------|----------|---------------------------|-------|----------------|-------------------|
| Through this programme I have met people I can ask for help in finding new training, education, or work opportunities (if applicable). | | | | | | |
| I have developed new skills and/or contacts in this programme that will help me to access future training, education, or work. | | | | | | |
| The things I have learned in the programme will help me in the future. | | | | | | |
| I have become more interested in studying, training, or pursuing jobs related to science, technology or engineering in the future. | | | | | | |
| Coming to the programme has helped me do better in school. | | | | | | |
| In the programme, I did and/or made things that were meaningful to me. | | | | | | |
| Programme activities were focused on challenging inequities in society. | | | | | | |
| Doing this programme has increased my self-confidence. | | | | | | |
| I feel my ideas, experiences and views were valued during the programme. | | | | | | |
| The programme has broadened my ideas about who does science, technology and/or engineering. | | | | | | |
| The programme has helped me feel more connected to science, technology and/or engineering. | | | | | | |
| Coming to the programme has supported my mental health and wellbeing. | | | | | | |

Initials:

MAKING SPACES

m4kingspaces.org

[UCL webpage](#)

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