

Ask me or tell me?

Enhancing the Effectiveness of Crowdsourced Design Feedback

Supplementary Material

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Supplementary Figures

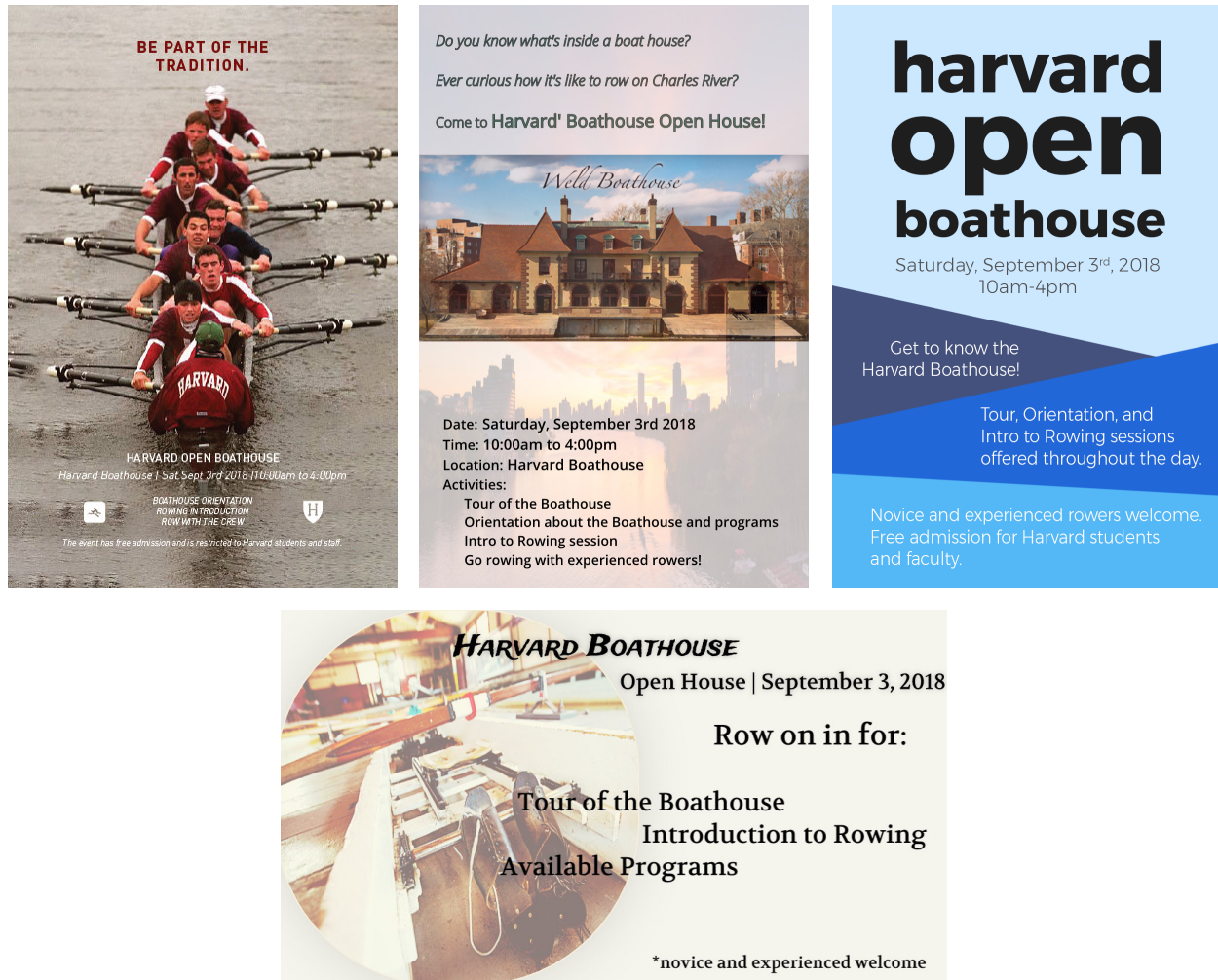


Figure S1: **Manipulation Check Flyers.** We chose these four flyers from the pre-study based on their diverse styles and quality.

Progress:


Image 1/4: Provide Feedback Statements

On the left side you see a graphic design of an event flyer. Examine the design carefully and provide 3 **honest feedback statements**. Please be *specific* and *justify* the aspect you point out. Note that the feedback is anonymized, so **there is no need to hold back your true opinion!**

Each statement must address one of the following topics of the flyer design. You can address the same topic as long as you focus on a different aspect. A statement should comprise 1-3 sentences. Note that the examples shown in **blue** are unrelated to this specific flyer.

Topics and Examples:

- **Layout:** Arrangement of the visual elements.
Example Statement: The alignment of the images looks very bad! The layout is messy and it is really hard to find the important information.
- **Theme:** Overall direction of the design.
Example Statement: The pink color palette and flowers are absolutely gorgeous! It really creates an inviting atmosphere for a child's birthday party.
- **Elements:** Design choices of specific visual elements.
Example Statement: Given that this flyer advertises for a sailing event, it makes absolutely no sense at all that someone is making BBQ in the background!



HARVARD BOATHOUSE
Open House | September 3, 2018

Row on in for:
Tour of the Boathouse
Introduction to Rowing
Available Programs

*novice and experienced welcome

1. Feedback statement:

Theme Layout Elements

Statement

2. Feedback statement:

Theme Layout Elements

Statement

3. Feedback statement:

Theme Layout Elements

Statement

Back Next


Progress:

Image 1/4: Rephrase Feedback Statements to Questions

Now, rephrase your feedback statements into concise, open-ended questions (1-2 sentences per statement). Please be *specific* and *justify* the aspect you point out. Remember that the feedback is anonymized, so **there is no need to hold back your true opinion!**

Below, in **blue**, are some examples on how to rephrase a statement to an open-ended question. Again, the examples are unrelated to the flyer shown below.

- **Previous statement:** The alignment of the images looks very bad! The layout is messy and it is really hard to find the important information.
Question: How did you decide on the alignment of the images? How could you best guide the reader to find the important information?
- **Previous statement:** The pink color palette and flowers are absolutely gorgeous! It really creates an inviting atmosphere for a child's birthday party.
Question: How did you choose the color palette? And how does it create an inviting atmosphere for a child's birthday party?
- **Previous statement:** Given that this flyer advertises for a sailing event, it makes absolutely no sense at all that someone is making BBQ in the background!
Question: What is the purpose of the person in the background who is making a BBQ? How does this person connect to sailing?



HARVARD BOATHOUSE
Open House | September 3, 2018

Row on in for:
Tour of the Boathouse
Introduction to Rowing
Available Programs

*novice and experienced welcome

1. Rephrase to an open-ended question:
Statement: "Statement regarding the theme."
Question

2. Rephrase to an open-ended question:
Statement: "Statement regarding the layout."
Question

3. Rephrase to an open-ended question:
Statement: "Statement regarding the elements."
Question

Back Next

Figure S2: Manipulation Check UI: Statements First.

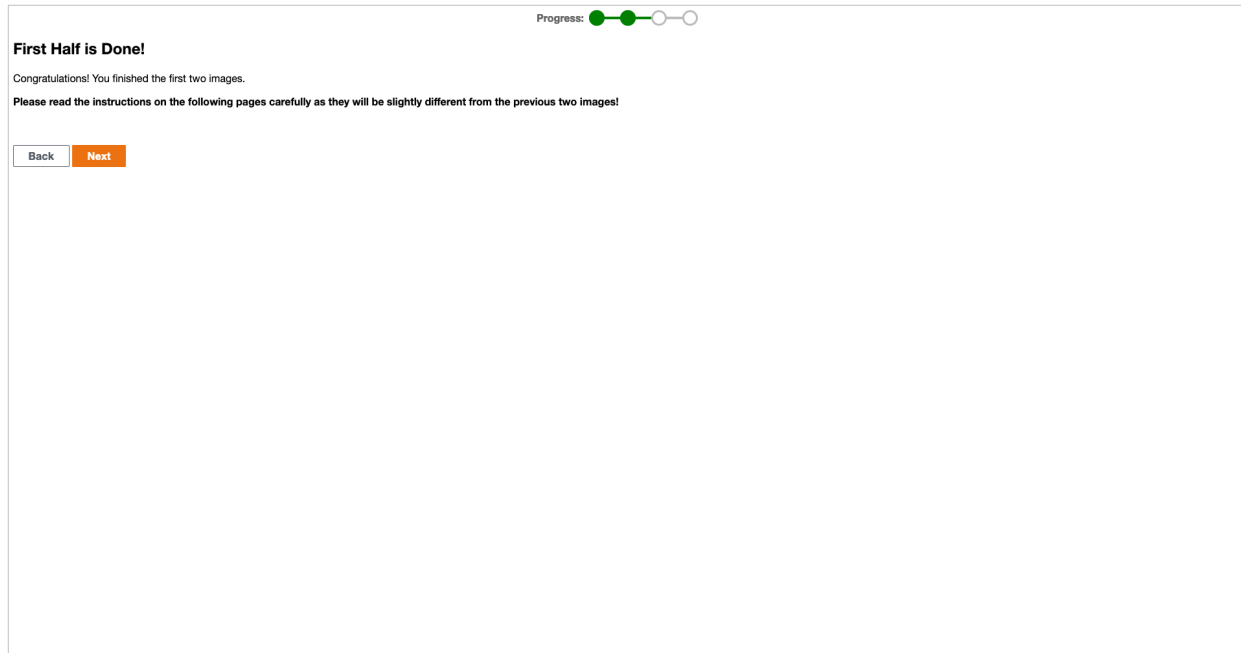


Figure S3: Manipulation Check UI: In-Between.

Progress:


Image 3/4: Provide Feedback Questions

NEW: Examine the design carefully but *unlike before* provide **3 open-ended questions** as feedback. Please be *specific and justify* the aspect you point out. Note that the feedback is anonymized, so **there is no need to hold back your true opinion!**

Each statement must address one of the following topics of the flyer design. You can address the same topic as long as you focus on a different aspect. A question should comprise 1–2 sentences. Note that the examples shown in **blue** are unrelated to this specific flyer.

Topics and Examples:

- Layout:** Arrangement of the visual elements.
Example Question: How did you decide on the alignment of the images? How could you best guide the reader to find the important information?
- Theme:** Overall direction of the design.
Example Question: How did you choose the color palette? And how does it create an inviting atmosphere for a child's birthday party?
- Elements:** Design choices of specific visual elements.
Example Question: What is the purpose of the person in the background who is making a BBQ? How does this person connect to sailing?



The flyer is titled "Come to Harvard Boathouse Open House" and features three images: a boat, the boathouse building, and a sunset over a city skyline. Text includes the date (Saturday, September 3rd 2018), time (10:00am to 4:00pm), location (Harvard Boathouse), and activities (Tour of the Boathouse, Orientation about the Boathouse and programs, Intro to Rowing session, Go rowing with experienced rowers!).

1. Open-ended question:

Theme Layout Elements

Question

2. Open-ended question:

Theme Layout Elements

Question

3. Open-ended question:

Theme Layout Elements

Question

Back Next


Progress:

Image 3/4: Rephrase Feedback Questions to Statements

Now, rephrase your questions into concise and **honest** statements (1-3 sentences per statement). Please be *specific and justify* the aspect you point out. Remember that the feedback is anonymized, so **there is no need to hold back your true opinion!**

Below, in **blue**, are some examples on how to rephrase a question into a statement. Again, the examples are unrelated to the flyer shown below.

- Previous question:** How did you decide on the alignment of the images? How could you best guide the reader to find the important information?
Example statement: The alignment of the images looks very bad! The layout is messy and it is really hard to find the important information.
- Previous question:** How did you choose the color palette? And how does it create an inviting atmosphere for a child's birthday party?
Example statement: The pink color palette and flowers are absolutely gorgeous! It really creates an inviting atmosphere for a child's birthday party.
- Previous question:** What is the purpose of the person in the background who is making a BBQ? How does this person connect to sailing?
Example statement: Given that this flyer advertises for a sailing event, it makes absolutely no sense at all that someone is making BBQ in the background!



The flyer is titled "Come to Harvard Boathouse Open House" and features three images: a boat, the boathouse building, and a sunset over a city skyline. Text includes the date (Saturday, September 3rd 2018), time (10:00am to 4:00pm), location (Harvard Boathouse), and activities (Tour of the Boathouse, Orientation about the Boathouse and programs, Intro to Rowing session, Go rowing with experienced rowers!).

1. Rephrase the question to a statement:

Question: "Question regarding the theme."

Statement

2. Rephrase the question to a statement:

Question: "Question regarding the layout."

Statement

3. Rephrase the question to a statement:

Question: "Question regarding the elements."

Statement

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Figure S4: Manipulation Check UI: Questions First.

Flyer Design User Study

Part 1

Welcome and thank you for showing interest in the marvelous *Flyer Design* user study.

This user study consists of **2 parts** and is about the effectiveness of non-expert design feedback on graphic designs. If you choose to participate, you will have to design a flyer for a sports event (part 1) and revise the design according to the feedback that we collected from non-experts (part 2). Each part will take about 45–60 minutes. You will be paid \$35 after completing both parts, and you have a chance to win an extra \$100 for the best flyer design.

Below is the flyer/ad for our user study with a summary of the necessary information. Click to enlarge.



[For more detailed information about the user study click here.](#)

If you want to participate, please click "Start" to proceed to the consent form. Otherwise, we wish you a pleasant day.



Figure S5: User Study Application: Session 1 Step 1. Welcome.

Consent Form

i Please read the following text carefully, before you are participating in a study being performed by scientists at Harvard University.

Researchers: Fritz Lekschas and Spyridon Ampanavos

Faculty Advisor: Krzysztof Gajos

Key Information The following is a short summary of this study to help you decide whether or not to be a part of this study. More detailed information is listed later on in this form.

Why am I being invited to take part in a research study? We invite you to take part in a research study because any adult is eligible for the research.

What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- Your participation is completely voluntary.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- Your refusal to participate will not result in any consequences or any loss of benefits that you are otherwise entitled to receive.
- You can ask all the questions you want before you decide.

Statement of Consent:

I have read the information in this consent form. All my questions about the research have been answered to my satisfaction. By checking this box I consent to participate in the study. Otherwise we wish you a pleasant day and deeply thank you for reading this document.



Back

Continue



Figure S6: User Study Application: Session 1 Step 2. Consent form.

Pre-Study Questionnaire

! All questions are mandatory unless otherwise noted.

What is your gender?

Male Female Non-binary

What is your age?

18-25 26-35 36-45 46-55 56-65 66-75 76-85 86-95 96 or older

Are you professionally creating graphic designs; e.g., as a freelancer?

Never 1 2 3 4 5 Every day

How proficient are you with digital image editing tools like Adobe Photoshop?

Completely unfamiliar 1 2 3 4 5 Very familiar

How familiar are you with receiving feedback on your graphic designs?

Completely unfamiliar 1 2 3 4 5 Very familiar

What are you looking for in feedback? (Select all that apply)

- A rating of your work
- Concrete actionable advice on how to improve your work
- General advice on how to improve your work
- Thought-provoking inquiries to stimulate reflection
- Something else...

Do you feel confident designing a flyer for a sports event?

No, not at all 1 2 3 4 5 Yes, very much



Back

Save and Continue



Figure S7: Web Application: Session 1 Step 3. Pre-study questionnaire.

Software Tool

! Do not close this browser tab. Otherwise, data might get lost.

You can use any software to create the flyer design (explained on the next page). For example, [Adobe Illustrator](#), [Adobe Photoshop](#), [Microsoft Powerpoint](#), [Apple Keynote](#), [Google Drawings](#), or similar software. If you have such a software installed and ready to use, please feel free to scroll to the bottom of this page to jump ahead to the next step.

We recommend [Google Drawings](#) if you have not used any digital graphics design tool before. If you already have experience with graphic design software, but you don't have access to any such software tool, we recommend [Gravit Designer](#).

To use Google Drawings, you need to have a free account with Google. For Gravit Designer, please either go to [designer.gravit.io](#) to use the online version of Gravit Designer or [install Gravit Designer](#) locally. Either way, you need to create a free account to run Gravit Designer. You might also want to take a quick look at [this short tutorial](#) to familiarize yourself with Gravit Designer's user interface.

Finally, please make sure that you **do not close** this tab during the study.



Figure S8: **User Study Application: Session 1 Step 4.** Graphic design software recommendation.



Important

You are now ready to get started with your flyer design. The next step will present the instructions and requirements for the flyer design. We will begin monitoring the time after you have clicked on "Continue" and ask you to submit your design within 30–45 minutes.

If you submit your flyer design well after 45 minutes, we will not consider it a valid submission. Please make sure you are free and will not be disturbed in the next 45 minutes.

A timer will be shown for your convenience.



Figure S9: **Web Application: Session 1 Step 5.** Timer warning.

Flyer Design

Elapsed Time:
0 : 22

Instructions: You have 30–45 minutes to design a flyer for an open house event of Harvard's Boathouse.

Technical Requirements:

- Size: 800 (width) x 1200 (height) pixels; or a different resolution with a 2:3 aspect ratio
- File format: JPEG or PNG

Title: Harvard Open Boathouse

Description: The Harvard Boathouse is organizing an open house event to advertise its recreational rowing programs.

The event will take place at Harvard's Boathouse on Saturday, April 4th, 2020, from 10:00 am to 4:00 pm.

During the event, students will be offered orientations about the boathouse, the facilities, activities, and programs. They will also have the chance to attend a short introduction to rowing in groups of 10 and will be able to go rowing with experienced members of the Harvard rowing community.

The event has free admission and is restricted to Harvard students, faculty, and staff.

Goals:

- Get new students to know the space, the facilities, and the programs
- Attract beginners who are interested in rowing but haven't tried before
- Bring new and old members together
- Increase awareness of Harvard's Boathouse club

Target audience:

- Harvard students, faculty, and staff
- Sports lovers
- Novice and experienced rowers

Activities at the event:

- Tour of the Boathouse
- Orientation about the Boathouse, available programs
- Introduction to rowing
- Rowing with experienced rowers

Submit: Please select your flyer design below and click on "Submit and Continue" to submit it us.

Select your flyer design (.jpg or .png)



Back

Submit



Figure S10: **Web Application: Session 1 Step 6.** Design brief and initial design upload.

Congratulations

! Do not delete the original file of your flyer design! We will reuse it in the second part.

We have successfully received your flyer design.

We will now collect feedback about your design and get back to you in the next week. The second session will take roughly the same amount of time as this session.

We hope you have a wonderful week and we are looking forward to seeing you next week! If you have any questions in the meantime, please do not hesitate to contact us.

Contact Us

Figure S11: **User Study Application: Session 1 Step 7.** Closing remarks.

Flyer Design User Study

Part 2

Welcome back! It is wonderful to see you again.

In the **second part of the user study**, you will be presented with feedback on your initially submitted flyer and asked to revise your design. This part will also take about 45–60 minutes.

Start →

Figure S12: **User Study Application: Session 2 Step 1. Welcome.**



Important

i Please open the original file of your flyer design! Thanks.

Are you ready to revise your flyer design?

In the next step, we will present the feedback on your flyer design. After reading and reflecting the feedback you have a chance to address the feedback and improve your flyer design. The whole part should take about 45–60 minutes. We suggest taking about 15 minutes to think about the feedback and 30–45 minutes to revise the flyer design. We will begin monitoring the time after you have clicked on "Continue".

If you submit your flyer design well after 60 minutes, we will not consider it a valid submission. Please make sure you are free and will not be disturbed in the next 45–60 minutes.

A timer will be shown for your convenience.



Figure S13: **User Study Application: Session 1 Step 2.** Timer Warning.

Feedback & Redesign

Elapsed Time:
0:09

Now it's **time to redesign your flyer!** To help you find areas for improvement, we collected feedback from online workers. When redesigning your flyer, please address the feedback that you think is valid.

Below you see your initial flyer design and the feedback we collected. Please **read the feedback carefully** and **tell us how interesting it is**. If you like, you can also order the feedback by its importance for your redesign. To order the feedback, use the handle (☰) on the side of a feedback item and drag it up or down.

After reading the feedback and reflecting on it, please start to redesign your initial flyer to address the issues.

Remember, you have 45-60 minutes for reading the feedback and revising your design. If you submit your revised design severely after 60 minutes we will not consider this a valid submission!

Your Flyer



Feedback

What made you use only one color for the text? ☰

DETAILED FEEDBACK

Does this question make you think about your design in a new way?

No, not at all 1 2 3 4 5 Yes, very much

Answer to see more detailed feedback!

Why did you choose this particular background image? How does it connect to rowing? ☰

DETAILED FEEDBACK

Does this question make you think about your design in a new way?

No, not at all 1 2 3 4 5 Yes, very much

Answer to see more detailed feedback!

What is the visual hierarchy of your elements and how does it support the reading flow? ☰

DETAILED FEEDBACK

Does this question make you think about your design in a new way?

No, not at all 1 2 3 4 5 Yes, very much

Answer to see more detailed feedback!

i You must expand all feedback items by selecting how interesting the question is before you can go to the next page to upload your revised flyer design.

We suggest staying on this page until you are finished with your redesign. But note that you can always come back via the "Back" button below without losing any information.

Just make sure **not to use your browser's back button!**

← Back Upload Revised Flyer →

Figure S14: User Study Application: Session 1 Step 3. Instructions for the design revision and feedback presentation.

Upload Revision

Elapsed Time:
1:07

When you are done, please upload your revision.

Submit: Please select your *revised* flyer design below and click on "Submit and Continue" to send it us.

 Select your *revised* flyer design (.jpg or .png)

 Back  Submit 

Figure S15: **User Study Application: Session 1 Step 4.** Revision uploading.



Flyer Received!

We successfully received your revised flyer design!

But the study is not over yet! Please continue to the next page and tell us more about the usefulness of the feedback that you received.



Figure S16: **User Study Application: Session 1 Step 5.** Upload confirmation.

Tell Us More About The Feedback

Below you'll see the same feedback from before but this time you have to rate **different aspects of the feedback** so please **read carefully!**

This time, please tell us how **useful** each feedback item was for your flyer revision and how you perceived the **tone of the feedback**.

Again, all questions are mandatory unless otherwise noted. For your convenience, a checkmark (✔) will appear once you complete rating a feedback item. Also, this time you can change your selections if you wish.



Feedback

What made you use only one color for the text?
DETAILED FEEDBACK
The colors are too monochromatic! No contrast! Improve!

Was this feedback useful for revising your design?
No, not at all 1 2 3 4 5 Yes, very much

If so, why was the feedback useful? (If any, select all that apply)
 It indicated a specific issue of my design that I fixed
 It inspired me to think about and change other aspects of my design
 It provoked interesting thoughts but didn't make me change my design

The tone of the feedback is...
Very negative 1 2 3 4 5 Very positive

The feedback made me feel... (Select all that apply)
 angry sad intimidated indifferent surprised happy excited

Why did you choose this particular background image? How does it connect to rowing?
DETAILED FEEDBACK
The picture does not remind me of rowing.

Was this feedback useful for revising your design?
No, not at all 1 2 3 4 5 Yes, very much

If so, why was the feedback useful? (If any, select all that apply)
 It indicated a specific issue of my design that I fixed
 It inspired me to think about and change other aspects of my design
 It provoked interesting thoughts but didn't make me change my design

The tone of the feedback is...
Very negative 1 2 3 4 5 Very positive

The feedback made me feel... (Select all that apply)
 angry sad intimidated indifferent surprised happy excited

What is the visual hierarchy of your elements and how does it support the reading flow?
DETAILED FEEDBACK
Very nice layout but the text at the bottom pops out more than the headline.

Was this feedback useful for revising your design?
No, not at all 1 2 3 4 5 Yes, very much

If so, why was the feedback useful? (If any, select all that apply)
 It indicated a specific issue of my design that I fixed
 It inspired me to think about and change other aspects of my design
 It provoked interesting thoughts but didn't make me change my design

The tone of the feedback is...
Very negative 1 2 3 4 5 Very positive

The feedback made me feel... (Select all that apply)
 angry sad intimidated indifferent surprised happy excited

← Back Save and Continue →

Figure S17: User Study Application: Session 1 Step 6. Feedback rating.

Post-Study Questionnaire

! All questions are mandatory unless otherwise noted.

You are almost done. Please tell us about the feedback process.

Overall, the feedback suggested that my design...

needed a lot of work 1 2 3 4 5 needed very little work

Overall, was the feedback useful for revising your design?

No, not at all 1 2 3 4 5 Yes, very much

Did you collect feedback or ideas for the revision elsewhere?

No, not at all 1 2 3 4 5 Yes, very much

How much have you improved your design in your own opinion?

No, not at all 1 2 3 4 5 Yes, very much

Do you feel confident designing a flyer for a sports event?

No, not at all 1 2 3 4 5 Yes, very much

OPTIONAL Is there anything else you want to tell us?

Type your answer here.

← Back

Submit Form

Figure S18: **Web Application: Session 1 Step 7.** Post-study questionnaire.

Congratulations

The user study is over! You did it. Fantastic job! 👍

We are deeply thankful for your participation. You will receive an Amazon gift card in the next couple of days.

In case your flyer design receives the highest ratings by our external jury of design experts, you will receive an award certificate and an extra Amazon gift card. We anticipate determining the winner in the next 1 or 2 weeks, depending on the availability of the external jury.

If you have any further questions please do not hesitate to contact us. We are here for you!

Your *Flyer Design User Study* Team

Contact Us

Figure S19: **Web Application: Session 1 Step 8.** Closing remarks.