

Evaluation Transcript: Participant 1

The evaluation was carried out on 16.03.2023 from 15:00-16:00. One expert (E) and the study director (L) took part.

This is a transcript of the audio recording of the interview, which will be made available to all participants of the interview. The transcript is subject to the conditions of the previously signed consent form. This transcript has been completely anonymized. The recording was started at the beginning of the "Think Aloud" process. Prior to this, the study participant (E) completed a training phase in which he/she was able to test the prototype.

This evaluation was originally conducted in German. Unnatural English formulations can be attributed to that fact.

E: Then. Task A: Download the choreography with the name "Evaluation choreography". It is located in the Downloads folder. I would now ... find my mouse ... click on "Load", "Choose file", "Upload" and then open the download folder in the opened window and there I find the JSON file of the "Evaluation choreography" and press "Open". Then I click on "Load" and that completes task A.

Task B: What is your current view of the choreography? Explain the content of the visualization in a few words. For me the dance floor ... the view is a dancer's view. I have an 8x8 meter grid, so a total of 16 meters in each direction ... um ... and I have 8 couples, or 16 individual dancers on the dancefloor and they are all standing in a large square alternating between woman, man, woman, man and then in the next row man, woman, man, woman. Exactly. That would complete task B.

Task C: In which position stands the lady with the number 8 in pattern 0? Which part of her body is touching that position? The lady number 8 ... I would briefly look into the "settings", the women are marked red ... if I hover over the lady with the number 8 with the mouse, then I recognize the meter in the ... 1 meter, uh -1 meter to the side and -4.5 meters to the back. I can see from the remarks that all the dancers are standing with their right foot on the defined position.

Task D: At which screen position would a coach be standing if he would be in front of the dancers? Currently at the top of the screen, recognizable by the triangle.

Analyze the choreography. Task E: In which position are dancers most often found during the choreography? Now I go to the "Analysis Mode" tab on the left and see the darkest field with 9 occupancies. That would be 2 meters to the side and 4.5 meters to the front. That would be the position where dancers are most often found.

Task F: Which parts of the dance floor are used particularly often, and which are not used often? Often used is mainly the center, more or less on the zero line if you look at it from the front. And sideways somewhere between 3.5 and 4.5... Exactly.

That brings me to task G. Find the lady or gentleman with the lowest movement distance in the entire choreography. I can open "Analysis" on the right-hand side, and when I look through it, it's the lady from couple number 5. 5. She has a distance of 48.3 meters over the entire choreography.

That brings me to task H. Create a new pattern for the choreography, which should contain a rectangle. Arrange the pattern in the center as best you can. Now I would switch to edit mode in the top right-hand corner of the screen, then go to „New Pattern" on the left-hand side ... I will now call the pattern "Square". I would now look to see if I have a standard pattern, which I do, so I use the standard pattern "Rectangle" and create this. I still have to get out of the analysis and now I have pattern number 25. All of them dance separately, as in pattern 1. I now do this by selecting the entire

screen or a square or all of them, hold one by drag and drop and can then move them all. I try to position them all in the center as best I can, but I can't do it exactly. In this case, I would now have an offset of one meter. Now the question is ... Um ... I have to read through the task again. In that case, it would be centered as much as possible. In my opinion, I could move the people even further apart to get an even distance and build my rectangle completely in the middle. But it would actually take me quite a bit of time to do it this way. I'm just wondering if there might be another option. Um. I can still rotate. Ok, now I think I've combined them all [scaling tool was used] ... Hm... Now I've done something. I think I would actually delete the image again and create a new one.

SL: Keep talking.

E: I have deleted it. I will now create the same thing again with the same name. Did it work? I think I jumped back to the old choreography.

SL: You have reloaded the website by pressing Enter.

E: Ah. Ok.

SL: The error is known. You haven't done anything wrong. However, please do not use Enter again.

E: Ok. I'll just reload the choreography. That should it be. The choreography has been reloaded as described in task A. Um, I'll go back into edit mode. The new pattern ...and name it a square again, create it again. Well, I would say that for me, without having to put too much effort into it, the task is done by placing the square more or less in the center.

I would then move on to task I: Now change the choreography so that the newly created newly created pattern is placed in the first beat of bar 36. I would click on pattern 25 in the timeline. For "New Bar" I would then select bar 36 and "New Beat" is beat number 1, which is exactly what is needed. I click on "Apply" and that gives me the new pattern at the bottom here in the first beat in bar 36.

Task J: Add another pattern containing a rectangle in which the back row of dancers forms a diagonal falling 45 degrees from left to right. [Participant reads through the question again quietly]. First, I need a new pattern, so I click on "New Pattern". Um. I name it "double diagonal", um, take the rectangle again, create the new pattern and then I have pattern 26. Um. Now I would actually, I think, the picture ... I would bring all the dancers together. Well, but. It's not the default, so I'll leave it like that. Add another image with a rectangle, with which the back row of dancers ... So, the back row are the couples, so the people in couples 8 and 7. Falling from left to right, so I want to rotate the diagonal by 45 degrees. First of all, I have to select the leftmost person. Um, I then set 45 degrees and press "Rotate". Ok, then it rotates it upwards, I want it downwards, so I have to go -45 degrees, press "Rotate", and now I have a diagonal with the last 4 dancers sloping from left to right. And that completes task J.

Task K: Now it's about the orientation of the dancers. In which direction are the ladies looking in pattern 8? First, I go to pattern 8 at the bottom of the timeline, have selected picture 8, then go to the "Orientations" button and can now recognize ... Now I have to look in the "Settings" again. Ladies were red. The left row of ladies looks to the left side and the right row of ladies looks to the right side. That's what the little arrow shows me. The direction of body rotation is diagonally outwards from the pattern center. This completes task K.

Task I. Excuse me, task L: Are the ladies in this picture facing the men with their bodies or not? No, they are diagonally facing away from the men.

Task M: Look at pattern 2 and align the ladies so that they are facing the men. I would then look for pattern 2 in the timeline below and select it. I would then take the row of ladies on the left. Um, then click on one of these selected ladies, the "body orientation" in the direction of the corresponding men, also the head. So "Body orientation" to 270 degrees and "Head orientation" -90 degrees. And ... "Apply it for ladies". And with that I've rotated one row of ladies towards their men. I then do the same with the others. Here the body rotation is 90 degrees, and the head rotation is also 90 degrees and then "Apply for ladies" again. Now the women are facing the men.

Task N. Now it's all about the 3D mode and poses. Which poses have the ladies in pattern 3 taken? I now select pattern 3 and go to "3D View". I can also zoom in, can rotate the pattern by holding the left mouse button. As I see it, all the Women ... wait a minute, read through the task again ... which pose? The women are standing with their legs closed, facing the men, right arm is elevated, and left arm is straight up. This is the women's pose.

Task O: Now make sure that all the men in the same picture raise their left arm. In this case, I would need the figure on the right ... the "select limb", I want the, uh, left arm. I take this, take the corresponding axis on the circle and move the arm upwards. Let's take it straight up. Exactly. Would then select "Apply for" and the "Gentlemen". And accordingly, the gentlemen have now all raised their left arm in this pattern. Good.

Then we are at the transitions. Task P. Find a potential collision of 2 dancers in the choreography and explain why it is a collision. I leave the 3D mode and go to ... um ... "Transitions". And now I would briefly switch to ... "view mode" to take a look at I think I've probably already found the place where a point with the transition is defined here. This is at the beginning of bar 3 in figure 2. There ... a lot happens ... In pair 7, for example, the gentleman and the lady have more or less exactly the same path, only mirrored, and these paths cross. They are also more or less at the same time according to the color coding. The same applies to the ... persons in pair 2, where the situation is similar. The paths also cross at the same time. Couple 3 also has very similar mirrored paths, the man and the woman. This means that we are very probably in an area where the collisions will take place. So that would it be for me ... have another quick look [Participant reads through task quietly] ... Task P completed.

I would move on to task Q. At the transition from pattern 19 to 20, change the path of pair 3 so that it no longer collides with pair 7. Then I switch to pattern 20 in the timeline and look at how the paths look. I should adjust the path of pair 3 so that it no longer collides with pair 7. In this case I would have to insert a new intermediate pattern. I would do this relatively at the start. I would add the pattern ... that was now the point of pair 7 ... take the point of pair 3, drag it to the point of origin of pair 7, because they should already be gone at that point. And I move pair 7 first to the side, then diagonally backwards. And then the collision between the pairs should no longer exist.

The task R is that I should now animate this transition. So, I go back to the "View mode", select pattern 19 ... Um ... now I just have to look at it again ... Ah Exactly. I click on "Animate choreo". Since I have selected pattern 19, I only want one another pattern, so I want to look at the collision between pattern 19 and 20. Um, the time between the animation I leave it at one second and press "Play". And now I see that pairs 3 and 7 run past each other. Um, now I'm asked whether I want to watch the animation again. I press "No" because it was clear to me that the two pairs no longer ... um ... collide.

And now we are, as far as it looks to me, at the last task, task S. Save the choreography. Uh, in that case I would go for ... Hm. That's a good question. About saving. I was able to load. I go back to edit mode. Then the "Save" button appears at the top next to "New" and "Load". Um, click on "Save". And with that, it has downloaded the "evaluation choreography" JSON file to the download folder or saved it. I should now be finished with the tasks.

SL: That's right. You did a great job. I think I reminded you once to keep talking. That's like the dream for anyone who does an evaluation like this. I'll come over to you so that we still have everything on the recording. Um. This was your questionnaire. Here's the pen. We'll do the two lower tasks first. So, now we're no longer in this "Think Aloud" process, which means we can communicate normally again.

E: Yes.

SL: Tell me what you particularly liked about the prototype. You can either write it down or tell me. And then problems or things you would like to have changed. What has caused problems? Maybe some suggestions for changes.

E: Ok, so I particularly liked the, I'll call it in quotation marks, gimmick with the 3D representation of the poses, because you can get really creative. The only question is how much this will end up exceeding, let's say, the capacities when creating a choreography. Um, but I think it's great that it's included, because I can imagine that it could be put to good use. Um, I think the rotation is good, so if I select several, I think it's great that the rotation ... uh ... works and I could of course also adjust the scaling, i.e. the distance between the pairs. What I realized when I tried it out is that the rotation doesn't work yet around a person, I say, rather in the middle of the row. So, it only works on the far left, I think the far right works too, right?

SL: Only far left.

E: Um, but you told me that there's still the idea of adapting it. Um, I find that super helpful because there are often points where you tilt a diagonal from different straight lines and then take certain pairs as tilt angles, i.e. as tilt points. I find that very useful and also very good. The handling in general is great, so I find it very easy to use and the only thing I got stuck on was where the "Save" button is. In the end, when I create the thing, i.e. when I'm in editor mode, it's clear that I can save, otherwise I only have access to the file and shouldn't be able to save it. From there: everything is nice. It's great to use. Everything is very easy to find. For me, it's fun to work in it, to click around.

SL: You also suggested that you could select only men or only women.

E: Yes, that's right. That's another point that could be expanded. For example, if I double-click on a gentleman, that I then automatically select all the gentlemen. If I now like here, I think here it was pattern 0 ... if all of them are somehow offset, then I would have to select all 8 individually with control and click. And so, I could use a double-click or any other combination, I could simply select all the men and then drag them to a specific position. That would be very helpful. Um, What I also noticed in the first 10 minutes of free testing of the program was that the animation feature, that during the animation of transitions, the pairs ... i.e. individual people are first combined and then follow their path. This looks like a small bug. Perhaps it would be better to let the individual people walk their paths first and only combine them at the end and just there, when you say: Ok, I have 2 individual positions and the transition path unites at some point, that from that point on I have the pair and the pair then moves on. I think that should be considered.

SL: You often looked into the settings while working on the tasks to see: What color is which dancer? Do you think it would help to add this somewhere as a small legend?

E: I think for the ... in the viewer mode, I think it would be useful to have a legend. Um, because I'm going to go so far as to say that it will probably be available as a mobile app at some point, so that you don't click on it somewhere and then know that it's the man number "that and the number". That you then have it at the bottom or somewhere in the pattern, that it's color-coded. That would be

great. In principle, I think if I were the creator of this choreography, then I would be clear. I just wanted to make sure at that moment that I wasn't saying anything wrong.

SL: Do you have anything else?

E: Um, no. So, I'm very positive and I think it's really what the program has become.

SL: Nice to meet you too. Now you can answer the 10 questions above. These are always statements where you give an answer on a scale from -2, called a Likert scale, to 2: Do I agree or disagree? You can do that briefly and then we're already finished.

E: All right.

Questionnaire

Please enter your age: 18-21 / 22-25 / 26-30 / **31-35** / 36-40 / 41-45 / 46-50 / 51-55 / 55-61 / >61

Please enter your gender: **Male** / Female / Divers / No answer / Own description

How many years of experience do you have as a dancer in a Latin formation and in which leagues:
Landesliga and Oberliga, approx. 17 years of experience.

How many years of experience do you have as a Latin formation coach and in which leagues:
Landesliga, 4 years.

How much experience do you already have with creating your own choreographies (in particular pattern and pattern development): **Approx. 4 years, no new development, only development and elaboration of existing choreographies.**

Wie viel Erfahrung haben Sie bereits mit digitalen Werkzeugen zur Bildentwicklung: **4 years.**

		I (strongly) disagree		Neutral	I (strongly) agree	
	Question	-2	-1	0	1	2
1	The visualization of patterns from choreographies is intuitive.					x
2	Positions of individual dancers can be easily assessed.					x
3	The representation of the viewing direction and orientation of the body are simple and intuitive.					x
4	The evaluation of the utilization of the dance floor is simple and intuitive.				x	
5	The visual collision detection helps to create new choreographies.					x
6	Creating new patterns is simple and can be carried out without great effort.				x	
7	The timeline is easy to use and intuitive.					x
8	Creating poses in 3D is simple and intuitive.					x
9	A 3D view adds value and should exist in parallel to the 2D view.				x	
10	The insertion of intermediate patterns and the animation of the choreography is both simple and intuitive.					x

What aspects of the prototype did you particularly like? Please answer in verbally or in key words:
Questions were answered orally, and answers can be found in the transcript.

What aspects of the prototype did you not like? Please answer verbally or in keywords: **Questions were answered orally, and answers can be found in the transcript.**