

Evaluation Transcript: Participant 2

The evaluation was carried out virtually on 18.03.2023 from 10:00-11:30. 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.

SL: Then I'll ask you to start now. Just go through the questions from top to bottom, read the question out loud while you work on it, verbalize everything you think and signal to me when you think you're done and if you get stuck after trying several times, just move on to the next question.

E: Ok. General and visualization. Load the choreography with the name "Evaluation choreography". It is located in the "Downloads" folder. Then... I put the file on the desktop. Ok. Did it work?

Um. What is your current view of the choreography? Explain the content of the visualization in your own words, i.e. the dance floor and its content. Um, I'm looking at the first pattern. I see the ladies and the men separately, the men in blue and the ladies in red. I have ... so I see the pattern from above, as if I were looking at the area from above. And I can see on which meter they are in the coordinate system.

Then. At which position is the lady with the number 8 in pattern 0 and with which part of her body is she standing on? Here is lady 8, first click on "Edit". Our lady 8 is standing ... ah, where is lady number 8 standing in pattern 0? Ah, here. Ladies: -1 and -4.5. And which part of her body is on the position? Hm... [not understandable, participant searches for information by sequentially scanning the interface elements]. All dancers stand with the right foot on their position, ok.

At which position on the screen would a coach be when he/she is standing in front of the dancers? At the top, where the arrow is.

Analysis of the choreography. In which position are dancers most often during the choreography? Then to "Analysis" ... hm ... [not understandable]. That would be where it's so nice and dark.

Which parts of the dance floor are used particularly often, and which are not? All right, the 0. Always with pleasure. Anyway. And then there are the 2 straight lines and this point. And which not? The end of the dance floor at the very back and the side. Find the lady or gentleman with the lowest movement distance during the entire choreography. These are the 2 here. The 5. They have the least distance.

Ok. Edit choreography. Create a new pattern for the choreography that should contain a rectangle. Arrange the pattern as close to the center as possible.

SL: Keep talking.

E: Oh, yes. We'll create a new picture. We need a rectangle, and it should be as close to the center as possible. I'll do it and then we'll have a look right away. Okay, it's already centered from above. Um, how can I select it now? Um ... [participant tries to move dancers in transition mode]. How do I get

them up there now, the whole pattern? No, I'll move it there. [not understandable, participant switches to orientation mode]. Now, can I move you like this? Can I enter something else here? No.

SL: Keep talking. Exactly.

E: I'm just thinking about how to get them up there now. All of them. They can't be moved up. How do I get you up there? Okay, I can't move them right now. Then I'll just see what else I have to do.

Now change the choreography so that the newly created pattern is in the first beat of bar 36. [not understandable, participant performs action as intended]. Ok. Now it is in bar 36.

Add another pattern with a rectangle in which the back row of dancers forms a diagonal falling by 45 degrees from left to right. Is it already selected? No, I don't know that by heart now, do I? I can do it myself. Add another picture with a rectangle in which the back row of dancers makes a falling diagonal from left to right. These are probably rows of eight. Okay. I think we need a double diagonal then. But the back row is not a straight line falling from left to right. Yes, it does, doesn't it? Very practical with the default pattern. I still have to see how I can get them centered here.

SL: To continue working on the tasks, I'll just give you this tip. To move dancers, you have to get out of the modes i.e. from "Transitions". So just click on the button again.

E: Ah. So just get out completely.

SL: Exactly. And then it works again.

E: Ah, ok. That means I can now get them to the center like this.

SL: Keep talking.

E: Ok. Then we have now set them to 0.

Orientation of the dancers. In which direction are the ladies in pattern 8 facing? Where do we have it? Here. And the ladies are looking either to the left or to the right. Are the ladies in this pattern facing the men with the bodies or not? No, so they look diagonally away from them. I can see that from this line going that way.

Look at pattern 2. Now align the ladies ... I need pattern 2 ... so that they are facing the men. Okay. I can now click on one of them and rotate and also look. But not for all of them. Too bad, I can't say for how many. Okay. Then we'll do it briefly for them first. Now the other way around and that's for all four. Like this. Now direct the ladies so that they're facing the men. Yes, ok.

3D mode and poses. Which pose have the ladies in pattern 3 taken? So, ok. Left Arm is up, right arm is propped up. They are, yes, not looking at their men, but they are basically looking to the side. Okay.

Now make sure that all the gentlemen in the same pattern raise their left arm. All gentlemen. I need the left arm, left arm. Now the question is: where to raise it? As high as possible. Maybe like the ladies. Okay. Pose must have a name. Ok. Wow.

SL: Keep talking.

E: Okay. Oh, yes. I've given it a name so that I can save it.

Transitions. Find a potential collision between 2 dancers in the choreography and explain why this is a collision. Okay. That means I actually have to go through the whole thing and see if it's stupid somewhere. Um ... I have to think ... [not understandable; participant looks for "Animate" button] I looked at it in the training session. Damn. Okay. Um ... I have to ... [not understandable; participant

searches for "Animate" button] ... transitions are the intermediate images ... um ... ok, now I'm just ... Damn, I did it earlier. I was still looking at it.

SL: Keep talking. Explain what you are looking for.

E: I remember what it looked like. But I can't remember where I pressed so that I could animate it from pattern to pattern. I could enter which pattern I wanted to animate. In other words, which pattern I wanted to play. Of course, I can now also search very hard, but I can also just let it run. But, I've just forgotten where to get it ... [not understandable; participant continues to search for "Animate" button]. Damn. No, I'm actually stuck right now.

SL: Feel free to say out loud what you just said quietly.

E: How can I run this? Yes, no, ok. In fact, I can't remember how to run it so that I get from pattern to pattern. That it displays them to me. Oh no, it was one of those displays where I could say how many. How did I get that open? [not understandable; participant continues to search for "Animate" button]. Or do I just have to look at it? But I can't change anything. But I can watch it ... [not understandable; participant continues to search for "Animate" button]. "Animate", ok. Time between animations: One second is fine. I want to find a collision, so I actually need all the patterns that are included. I would then need 26. Huh?

SL: Keep talking.

E: Yes, I wanted to have all 26 patterns animated, but I have to start at the beginning. Ah yes, ok. I just have to click at the beginning for it to play them. The question now is: Does the program recognize collisions automatically? That it says: I can do that. Or do I have to see what happens? [not understandable; choreography is animated and participant watches]. Can I stop it? It will probably continue until the end. No stop button. Uh, no. I want to take a look again ... [not understandable, participant looks at pattern 18]. Wow, they're running very wildly. Exhausting pattern.

SL: Keep talking.

E: Yes, I was just looking at the 8. But I found it. Ok, from here to there, that won't work. So that's not going to work. Everyone's running around. That's my assumption. It feels like they're in the same place at the same time. They'll get into trouble. Find a potential collision between 2 dancers in the choreography and explain why this is a collision. They are probably in the same place at the same time.

At the transition from pattern 19 to 20: Change the path of pair 3 so that it no longer collides with pair 7. These two here. Well, that affects all the pattern that come afterwards, yes. But I would actually have to swap the pairs so that they are in a better position. Here is the 7, the 3 is underneath. But these are pairs, this is the pair. Yes, these are pairs, and this is the other pair. Um, they would have to change positions beforehand. I can just move it now, but the next question is whether that will help them that much. The 3 should go from down there to up there. That's just not possible. They have to swap, but then they come from the wrong position. Do I think too complicated? Maybe I'm thinking too complicated. But they come from an even position here. I would have to swap them both beforehand ... but that's not possible ... [not understandable, participant looking at transition from pattern 19 to 20]. In principle, I would have to swap the 3 and the 7, but ... actually they would have to swap right there ... [not understandable, participant looks at the pattern in the vicinity of pattern 19 and 20]. If I just swap them now ... I'm in view mode ... no, why not? Ah.

SL: Keep talking.

E: Made it 2 seconds ago and it's already gone again. How could I move the pair? I wasn't in anything, but I was probably still in view mode. Yes. Otherwise, I would have just said, unfortunately they have to go to the other position. But that's just crap for all patterns that come before the current one. It doesn't automatically move them retroactively. I then basically have the problem that they're always in the wrong place when I move them. Can I effectively swap them or something so that the program notices that I have swapped them? That they don't go there, but somewhere else. But they wouldn't run into each other if I swapped them beforehand. Then I wouldn't have to swap your positions. Now I'd just have to see if they run in from here. [not understandable; participant animates transitions from patterns 17 to 19]. 2 would be enough. Here, they swap positions, ok. Now, of course, I have the permanent problem that this will probably happen again. Yes, because the 3 is always down there and now it's no longer down there. Can I change them permanently? Or are they out of luck and just have to walk a shitty path? [not understandable; participant animates transitions from patterns 18 to 21]. I'm probably doing it the hard way now; I let them run the other way round. But then they are completely upside down at the end, so they are always reversed. So, you'd have to swap them back again at some point. I don't actually want my 3 at the bottom. I assume that I don't want the dancer back there. [not understandable; participant animates transitions from patterns 18 to 23]. Okay, now I've gone wild. Stop. No. Um, 7 and 3, they go up there. Ah, they're the wrong way round now ... that'll work. Never mind, they'll have to swap again. Like this.

SL: Keep talking.

E: Okay, yes. The 3 has to go up once, then comes the 7. Now the 7 and 3 no longer get in each other's way. There, now. It was a complicated way to get there, but they don't get in each other's way anymore.

Oh, animate the ... yes, I have just animated it and I should save it. Where can I save it? [not understandable, participant searches for button to save]. Um, I really need to have a quick look now. Or does it save automatically? No. Um ... ha, I can't save it. [not understandable, participant searches for save button]. I can go into edit mode. Uh-huh. Ok... [not understandable, file has been downloaded]. Ok. I'm done with my tasks, I think.

SL: Ok. Then thank you very much. Now we have one last thing to do. We need to complete the questionnaire. I'll share my screen again. You should see a Word file. First of all, I have a short ... let's have a discussion round. I would ask you about aspects that you particularly liked or, on the other hand, things that caused problems, things that you see critical and that you would like to see improved.

E: So basically, I like it ... it's actually easy to use. I think it just needs ... so if you do it often, then you know where to find things and so on. So basically, I think it's quite easy to use. Of course, I had to search for something, but overall, it's not a problem. As I said, if you use it often, you know where to find it. I understand that you can't run the animated version while editing. But it would actually be easier if you could run the animation thing while you're still editing. But then it's probably a bit too wild at some point. But that's not a bad thing. As I said, if you know that you just have to press it and the "Animate" field will appear, then it works. I find the 8 beats interesting. I don't know which other coaches you've worked with, because we always have intermediate pattern that don't go to the eighth beat, but that's just ... sometimes there are only 6 or 4. With 6 it becomes more difficult, with 4 I can just say that this is now the eighth beat. But with 6, yes ... it doesn't start again with the next four or eight, but it's in the middle of the beats. But I think it's cool that it's divided into beats. The old program doesn't have that, for example. So of course, you have the problem that you have to write in it somehow ... there was a field with notes, quite a big one, and you had to write in it: On beat "blah blah blah" the gentlemen do "blah blah blah". And then of course you could incorporate it

into the beat. Apart from that ... I think the 3D view is really cool. I don't know how much it's used, but I think it's quite practical for ... making out things like the angle of arms or feet or something like that. Because that's always a discussion. What is somehow ... this is stupid now, but what are 45 degrees. Or what is a diagonal arm. These are discussions that you are going to have. And then you could just say: Here, look at the pattern plan or just look at the file. This is the pose, and this is how it should look like.

SL: Yes.

E: That's why I think it's fundamentally good. It reminded me a lot of the program we are currently using. But it just has more, more choice of what to do. I also think it's cool that you can see the distance in meters, so there's always the question of how many meters you actually cover. Some people have already said to me: you almost have to put on a fitness watch for a run and see how much distance you actually cover. That's enormous. And I also think it's good that you can see how much distance you've covered. Because that really is another reason for discussion. I always have the long distances and I always have the short distances and then you can say: No! Calm down. That are more or less 2 meters. There are also people who complain about things like that. And then I think to myself: if that's your whole problem, then wow. But I find the space utilization quite practical. Because that's something that will be noticeable at the show. If I make a pattern plan and realize I'm not using the whole back half or one side at all, like with the choreography here, then you'll notice that at the tournament. And it's also about space utilization. So that's also a rating criterion. A bit like that: Where does the team move. And if I notice that a third of the area is not occupied at all, then I have to change something, because that doesn't look good from a greater distance at the tournament. And that means you don't notice such things. Then you stand there and think to yourself: Hm, that went badly. So of course, you can then adapt the choreography a bit and say: Ok, we have to use the whole area somehow or we also have to use the back part of it. I think that's quite good. But also, the thing with the meters in between, that I can say between 2 patterns: I'd like to have a pattern in between, because otherwise we've basically taken a pattern for every single spot that you dance over. That's why you end up with a pattern folder with around 300,000 patterns. And then you first have to find where you are. And then when you can say: Ok, then there's a stopover, then that's something else again like a completely new pattern. That's very practical. And you can't do that in the other program either.

SL: I often heard this discussion with other coaches. How many intermediate patterns to take or how much effort is worth it? There were always big discussions about that.

E: Yes, it is difficult. Because sometimes you need intermediate pattern, because you want to see the next pattern early on, which only works if people know where the next pattern is supposed to be. And if they then run into nirvana because they somehow think they have to dance hard on their next meter, then you have to insert an intermediate pattern. But with the program, it's immediately a new pattern. And then it's always difficult because it's just a second. The pattern is there for a beat and then it's immediately gone again and then some people insist on it and you think: No, in real life it's just a transition. So, you don't have to stop there, you have to dance over it, but you have to dance over this point, but then it might look better for the dancer if it says: This is a point where you have to go over and not where you stop.

SL: Yes. Is there anything else that ... Any functions that you were missing?

E: So, since it already has more than what I use ... uh, actually, I can't think of anything off the top of my head. I find it interesting that the "Save" button only appears when you're in the right menu. Because that's what I was looking for. Because I also want to save it temporarily or something and I think I would look for it again next time. It would be nice if it was always there. So, as I said, similar to

this animation, that I could also animate it in between. But, as I said, if you know that. For God's sake, you just press it once at the top and then you're in the right menu It's not too bad, but it does take some getting used to.

SL: I mean: That is definitely something that can still be improved. That's why we're doing this here. There are also things that we learn here. It's not just you who have noticed this, but also ... It's something that comes up often, this: "Why isn't the button not here now"?

E: Yes, it just makes it easy. And people are just lazy. And one more button is one more button. Overall, I liked it quite a lot and, as I said, if you use it more often, it becomes much more logical at some point what you have to use. But I didn't have a huge problem with it. Like with a collision or something: Normally, you don't do it in the middle ... You don't create a finished choreography on paper. For us, it's created in a process. And that's how you can tell whether there's going to be a collision or not. That tends to happen when you change a pattern. But with an existing choreography, there are normally no collisions. Hopefully. Unless, as I said, you make a change, but then you have to retrace all the pattern. That is actually a question. Could I now say: I'm swapping pairs. Can I tell the program: I want to swap them permanently in the complete choreography or would I then have to swap them in every single pattern?

SL: No, that doesn't exist. But that would of course be a suggestion that we could incorporate.

E: Because sometimes there are pattern changes, that I do on purpose when another couple comes to the front, because you want to have your front there. And if I then say: Ok, we'll create a new pattern somewhere in the middle so that other couples are at the front, then I have to change every single pattern so that the number is right. It has already happened that we've had to change every single number. That's exhausting. But of course, it would be nicer if I could say that I want the pairs to swap permanently from pattern "dot dot dot" onwards. Yes, that would actually be cool.

SL: About the collisions. I wanted to discuss that with you. You have used the transition mode relatively sparingly, I would say.

E: Okay.

SL: Was that because you didn't realize what was happening in there or was it simply not explained enough in the video?

E: That's a good question. I didn't have the feeling that I needed it urgently. When I needed an intermediate pattern or when I had to look somehow: How is this developing on the surface? I find it really good for visualizing, because then I know: Where do the pairs come from? And I can think about it beforehand: Does this make sense? Especially when they're scurrying around or something. But... hm... I don't know how it is in other clubs, but we don't develop a pattern plan without a choreography, we just come up with the steps first and then it's like: dance as far as you can with these steps, i.e. what's possible. And then the trainer tries to create a pattern from it. This means that I already have basic pattern beforehand and then I only have to look for intermediate pattern: Where can I put an intermediate pattern? Where can it go so that there are no collisions or anything? We rarely have collisions. Um, yes...

SL: Of course, it's very interesting to see how things work for you, because I also know how things work at other clubs and they actually work differently. They have a completely different approach. Do the steps come first, or do I have a choreography and change it? Or do I create everything from scratch? That's why it's actually very interesting, because I wasn't aware of the process you use. I would like ask briefly: Do you know what the color gradient on the line here encodes? Did you realize that?

E: So that they're both running along? Well, I'm red, the lady ... no, that's not true at all. That is a couple. No, not then. No, not really.

SL: Okay. That's another important point. The color gradient describes how much time has passed during the transition.

E: Ah, okay.

SL: In other words, if lines cross and they have approximately the same color, you should be able to see visually that a collision is taking place there.

E: No, I just had a look at the one picture by the meter. They will meet. If I think about it: they have the same steps and have to walk so and so many meters, then ... That was kind of logical for me. But of course, if you know that, it's much easier visually, because then you don't have to think about it.

SL: Exactly. In other words, we need to explain it better.

E: Yes, that's right. Yes.

SL: Okay. Then I only have 10 small questions for you here. These are statements where you can answer on a scale from -2 to 2 whether you agree or disagree. -2 stands for "I don't agree at all", i.e. completely against, -1 then for "I agree against", 0 is "Neither for nor against" and so on. You can now simply tell me the numerical value you would like to insert for each question.

E: The visualization of images from choreographies is intuitive, so yes, definitely, so 2. Positions can be read off easily. In any case, too. Sure, also 2. For someone who knows the coordinate system and knows how to work with it, then definitely yes. But that's what I assume if someone has such a program. The representation of the viewing direction ... well, of course, if I don't know that now, it's been explained: there's the front and so on. But for anyone who doesn't know this meter system from dancing, it's very difficult to understand what's happening. The representation of the direction of the gaze and the alignment of the body are simple and intuitive. Yes. It's clearly visible. Definitely.

SL: What number would you use?

E: So actually, I would also say: 2. It was clearly recognizable and also well explained. The evaluation of the utilization of the dance floor is simple and intuitive. Yes, I thought it was very good. I really liked it anyway. Very useful. The visual detection of collisions helps when creating the choreography. Now that I know how it works: Yes. However, we just don't need it like that. I would rather go for 0, but simply because we develop patterns differently.

SL: Yes.

E: Creating new patterns is easy and can be done without much effort. Yes. 2.

SL: Unless it is faulty.

E: Yes, even when I'm not pressing "Enter". In fact, I also think it's cool that there are predefined patterns. I'm not familiar with that either. That I can just say: Ok, I just want to have 2 diagonals and then they're perfectly spaced. I think that's very good.

SL: You can also define your own blueprints. That was also explained in the video. We just didn't use it here.

E: Yes, but sometimes you need that. Sometimes you create very wild pattern. The operation of the prototype in connection with the timeline is simple and intuitive. Yes. I have my pattern at the bottom, my beats. So, as I said. With the beats. We also have a six-beat time signature. That makes it

... yes, it shifts at some point, but if you handle it well, it should still fit. I would probably go to 1 because we don't have a continuous eight beat.

SL: Quick question: Which dance has such a six-beat time signature?

E: We had ... so what does "exists" mean? The music simply dictates it at that moment, because the dance changes after 6 beats. That was from a samba to a paso. And they only counted up to 6 and the next beat was the paso.

SL: Ah, okay.

E: So, something like that can actually happen. I don't know what other coaches you've had and how high they've danced or trained. The higher you get, the more fluent you make the transitions, because you don't want to have this cut off: Now the dance is over, now comes the next dance. You do that with a rumba, but with other dances you try to make it very fluid. In other words, we sometimes have ... We have a samba in there right now, for example. It ends with a few rumba beats. That's because the music is so tired. It's actually a rumba timing. And then the next beats are immediately Paso again. It's just a mini-transition to get into the next dance, which means I often don't have a figure of eight anymore. The higher I dance, the more I try to make it flow. And that sometimes results in bars other than just 8. So basically, the dances have 8 beats. That is correct.

SL: Yes, that was my research too. I also used to dance for several years and back then all the Latin American dances were always in 2/4 or 4/4 time.

E: Exactly. That's right. That's basically the case. It's just that ... in the formation, if you design transitions in this way, it can happen that there are sometimes fewer or more beats. Or even if you get to the higher leagues and there's a highlight in there, something like a Lankenau or a coffee grinder, you don't count to 8, you count through the highlight. For example, we have a Lankenau at the very beginning, that's 10 beats of Lankenau, and after that you don't continue counting from 1, because then it's completely broken, but we count through to 16, for example, until it's finished and then the next 8 would come. But we don't count through in steps of eight. Because it doesn't make sense. I don't start at 1 again with the Lankenau.

SL: Is that a dance figure, this Lankenau?

E: Yes, but you can only dance them from the 2nd Bundesliga onwards. Lankenau and coffee grinders are only available in the higher leagues. You're not allowed to dance them below that. They are pirouettes on one leg.

SL: Ah, okay.

E: Exactly. And they're usually longer than 8 bars, especially the higher you go. Some of them have 16 or 20 beats of highlight in their choreographies. Creating poses is easy and intuitive. Yes, definitely. It looks very cool with this mannequin. Yes, I would take 2. A 3D view has added value and should be parallel ... so definitely. As I said, for poses, yes. That discussions simply have an end. I would also fully agree with that.

SL: So, 2 as well?

E: Yes, so both. Of course. 2. You need both views. I think it's really cool. Inserting stops and animating the choreography is easy and intuitive. Yes. Well, it took me a little while, but once you know how to do it ... so yes, 2.

SL: So, 2 as well?

E: Yes, as I said. I used this tool for the first time today. I'm not familiar with it, but if you do it more often, it's actually relatively simple.

SL: Okay. Perfect. Then these are all the questions I have or had for you. Then I'd like to thank you again. It was actually very interesting to get insight from higher leagues. Because so far, I've only worked with coaches from the Landesliga, where it is more of a hobby. Thank you very much for taking the time.

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: **8 years (Landesliga, Oberliga (does not exist anymore), Regionalliga, 2. Bundesliga)**

How many years of experience do you have as a Latin formation coach and in which leagues: **3 years (Regionalliga, 2. Bundesliga)**

How much experience do you already have with creating your own choreographies (in particular pattern and pattern development): **Adaption of already existing patterns from their A-Team + creation of additional patterns.**

Wie viel Erfahrung haben Sie bereits mit digitalen Werkzeugen zur Bildentwicklung: **Adaption of already existing patterns and creation of new patterns with a digital tool (called Bilder Studio)**

		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.**