**Transcript of group interview with Dandan, 7th June 2019** *(this is a pseudonym)*

The researcher’s speeches, actions and summaries are in roman text, the interviewee’s speeches are in italics.

*Dandan took extensive notes in preparation for this interview. I ran through the other workshops to remind Dandan the main points of each.*

1. Before starting the course, what did you think critical thinking meant? What did you think a good critical thinker was like, or did?

In her pre-course task she said …*From my perspective, critical thinking may be critical about everything. To some extent agree or disagree with, at the same time, find detailed evidence to support arguments.*

1. Have you changed your mind about this? If so, how and why?

*Actually, I don’t change my mind about this, but I have more additional thinking. For critical thinking, be more neutral [unclear] neutral point. And we* [she says she is nervous, I reassure her] *from the workshops, such as from the second one,* *I found that always I am cherry picking, when I write essay I like to reference from, oh, I like this, so I reference this.* *And for such as framing, I think I have more, especially for the climate change, economic issue, religious issue, political issue, I don’t know about that, but I also know the health issue and this is environmental issue, so – critical thinking means also we could* [she apologies for her “broken English”. I ask her if she means she/you can look at the whole picture or see things from different perspectives, and she agrees]. *Different perspectives, yeah.*

1. What did you think of your own critical thinking before starting the course?

[Skipped this for some reason and moved onto the next question, but it was answered anyway].

1. Do you think because of the workshops your own thinking has changed at all?

*I remember once – I - how to – OK, you ask a question, and when you ask “why”, we don’t know why. We just, you know, emotional and descriptive, and for me I don’t know the true reason.* The true reason for what? *For one question. We just describe you know, describe, describe, you ask the point. We don’t know, we just - descriptive.* Can you think of an example?[She says she forgot, and seems to be looking through her extensive notes]. *I forgot, but such as this example.* [She shows the probability problems from Workshop 5, including the Linda problem, which shows that people’s assessment of probability is affected by stereotyping*.* I read this out for the recording. Dandan explains how she had chosen the logically wrong answer because influenced by stereotyping, but understood why she was wrong when I explained it. *Before you* *told us, my friend and I, also choose, yeah, Linda is a feminist insurance sales - because we think, oh, from this message, she is 35 years old and single, no children. And first woman, especially first woman, be elected President of the Student Union, so we go direct to the number B, so - but after you explain about insurance salesperson also include this [feminist insurance salesperson], this is more reliable, no, no, no, if we choose A, it’s more, the right, the probability is higher?* I explain the point of the activity. I ask the question about whether her own thinking has changed again.

Dandan says: *Changed a little. Such as write a assignment. Read as much as possible. Different view, such as – also religious issues.* She says she was sent a bible by a professor at the British Museum and now she looks at this.She also saw Wright’s 1768 painting “An experiment on a bird in the air pump” in the National Gallery in London. If she hadn’t had Workshop 3, the painting would not have made sense to her and she would not have seen the issues within the picture*. Feminist issue and also you know historical issue*, *and if I didn’t participate this workshop, I will not pay attention to this, I will not think this picture is very some particular issue for me, maybe will not make sense. And also if I don’t participate I will not see the picture some issues such as feminist, also – a lot of issues about this picture.*

[I agreed that any work of art can be interpreted differently, and asked her to tell me if the workshop/s changed her perspective in her studies of any other areas of her life].

*Also you know emotional and statistic data, such as the -* [she stops to think how to express her thoughts] *-* *you know some emotional words will infectious me a lot before, also now, so* *I think from now maybe I could see more statistic data evidence and choose to examine the truth not only, such as these people say climate change is disaster so I think climate change is disaster.* I ask if this means she will not trust emotional language so much in future. *Yeah. Even though this many celebrate* (???)*. So, last week I went to London and people talk about climate change. You know a group of youths, they think this is very serious issue, and then I listen, and I think* [stops to look for a translation on her smartphone] *they just emphasise that climate change is very serious problem, issue, and they advocate youths could action**.* *So emotional infectious the whole, you know, the group people, but after reflect I don’t think they tell us what the detail thing, what others perspective of the climate change, they just you know, “do action”, actually, how, how to do I don’t know.* I suggest that this kind of simple appeal to emotion, using images and strong words, is the nature of protest and then I move on. Anything else you’d like to say about changes in your thinking? Or shall we move on?

*Yeah, try imagine I’m another person to think such as you give us example about drug addiction, such as doctor will see it as political health issue and such as drug dealer he can see this is money, it’s about money, it benefits to them.* *So, people always you know cherry picking, they choose which one they feel comfortable, and they like. For me, I think I should try to imagine others, such as imagine I am them.* Put yourself I their shoes. *Yeah. Stand -* [Dandan looks for a translation, finds the word “empathy”. I explain what empathy means]. Anything else about how your thinking might have changed? *Yeah, social clue.* [Dandan struggles to remember the phrase “bystander effect”, which I supply. I explain the bystander effect again, in terms of risk perception].  *So after workshop I think maybe it’s not, such as a viewpoint, a great amount of people support it or a few people support it, we can’t judge the right or not, depend on the amount.* Depending on the number of people.  *Yeah.* So what you’re saying is the majority is not always right. The minority could be right.  *It’s hard to judge.* *We have to, depend you know the situation, we have to find the evidence to choose this argument is true or false.* OK. Rather than how many people believe it. *Yeah. The point is, it’s hard to judge on the number of people.*  OK. Anything else? *Next!*

1. What did you think or feel about climate change before starting the course? Has this changed since then, if so, how and why?

*Before the course, Dandan said in the Pre CT**:* Climate change is a hot topic around the whole world, and it is an serious issue also, this word appears almost everywhere. As far as I am concerned, climate change has a deep impact in some countries like Maldives, it is always at risk of being overwhelmed for the temperature go up and regions such as the North and South Pole. However, climate change may effect people in cites in developed countries tightly [lighty?], because it’s nothing more than a hot or cold climate.

*I changed my mind now.* OK, tell me all about that! *Such as Norway. They are a big country, no, no, no, they – oil export, high rate about this, their economic supported by the oil export, and also oil, you know the plant rely on the climate, so also the climate change more influenced on developed country from the economic perspective.* [I didn’t understand what she meant, so I explained again why I used Norway as an example of doublethink – they are dependent on oil, know about climate change, yet a large part of their national identity is that they care about the environment and love nature. I ask again what she wanted to say about Norway. *Actually before, before you told us this I thought the paragraph described the Norways – I think maybe people in there will not care about the climate change because their country you know developed and they live in a good environment, they care about the environment things, they like protect the river, protect the forest, so the atmosphere about the climate there is normal and excellent, you know, so maybe people there will not care about the global issue about the climate change, they think, oh, maybe they will think, the climate here is very good.* So this is before the workshop, *Before, yeah.* So after? *They will not care about that. But after, I think, yeah, at least in Norway people such as businessman will care about this thing.* Why businessmen? *Oil export, they will care about this, for the climate will affect the oil’s quality and quantity, yes, they will care. Stock – stock?* [Puzzled, I try to explain the link between oil and climate change: burning oil produces C02 which enhances the greenhouse effect and makes climate change worse. In the middle of my explanation Dandan, confused, asks if I mean climate change will make the oil worse, and I say it’s the other way round. I ask again why she thinks business people would care about climate change. *Such as you know, if the climate is better, the oil from the farm? Farm? The oil quality and quantity will better, they will have more money to earn. So they will care. Money*. [I seem to be unable to grasp that she is actually saying this, and keep trying to recast it in a way that makes sense to me. Eventually I accept that this is indeed what she is saying]. *They will not care the oil burning get the climate worse, however they will care the worse climate will affect their oil quality and quantity**.* So you think climate change would affect the quality of the oil? *They will care.*  OK, ah, I never - that’s interesting, I hadn’t thought of that idea, I don’t know if climate change would affect the quality of the oil - *Such as an example from America. Texas [???] peasants they before because the system they can use their farm, their such as their* [looks for a translation] *their wheat crop, their product to exchange another things, such as scarf, they don’t care about economic crisis. However, times change, the economic crisis will influence their - and then they use cash, to buy things, and economic crisis will affect, such as reduce* [struggles to find the words. I suggest they will be poorer because of the economic crisis. Is this what she means?] *Yes, they will care about that.*

[I asked if there was anything else she wanted to say about climate change and her feelings about it]. *I think I learned a lot from Workshop 3. You show us from Greenpeace they think this, uh, environmental issue, and Oxfam, poverty, they solve the poverty, this moral issue. And also, from the Islamic climate change, they say this religious issue.* [I say this is different ways of framing]. *Different framing, yeah. Now I think we can regard climate change from this perspective, such as this will threaten financial, from economic issue perspective. And also, Labour Party they say this is political issue. Engineering – also, I never this is a technical or engineering problem.* I agree.

1. Is there anything else you would like to say about this course?

She talked about the video that began Workshop 2, and the number puzzle. Dandan seemed at first to think the point was that the rule doesn’t matter. I explained the point of this again, that people form a belief early and stick to it, even when told it’s wrong, and look only for evidence that confirms their belief, when it would be more productive to find evidence that contradicts it. Then Dandan thought that the point was that people thought the rule governing the sequence was narrow (e.g. double the number), whereas it was actually very broad (three ascending numbers). I explained again, and finally Dandan seemed to get it.

*Also about the black and the white swan, if we don’t know and we never see the black swan, we will not choose (???) the world exist black swan, so I think maybe if they are not exist now, that doesn’t mean this thing doesn’t exist exactly. So, be critical.*

Anything else?

*This is really a great chance for me to examine my learning.* [Looks at her notes] *Yes - respect is more important. Respect is more important, to try to understand different perspectives rather than we trust which one is right. So, respect.* [Looks at her notes] *Yeah, I also think women talk more than men.* [I laugh. You still think that?]*Maybe, because people around me, more women talk more than men. That doesn’t represent, you know, the females speak more than male.* Dandan talks about the example I used of how I showed the process of my thinking in testing my own confirmation bias regarding the behaviour of students and teachers on ELTC trips. *I think it’s very – enlightened?* I clarify what I was doing with that exercise and that I have confirmation bias like everyone else.

*I always think it’s hard when you ask “why?” My thinking not deep, you know, always. It’s very shallow, to be honest, always my thinking – stereo - ?* [searches for a translation] *Maybe I could understand why my mode of thinking is very shallow. Such as you ask, “why?” I don’t know why.*  [I say my purpose was to get students to examine their own thinking, and that sometimes this is called being reflexive].  *Always I judge something from my feeling from the first thing.* I briefly outline dual process theory. I think that critical thinking means using your System 2, but humans naturally use their system 1, their “feelings” as Dandan calls it.*No temperature, it’s zero. I mean, not hot or cold. Could be critical means.* Yeah, you said at the beginning, didn’t you, it’s about being more neutral, you said. *Yeah, neutral, respect and try to – deep, explore deep.* I said Dandan’s key words for critical thinking were “neutral”, “respect” and “deep”. *And also logically. You know, you tried to explain the ELTC why, I think it’s very logically, yeah.* [I get up to adjust the temperature of the room again].

*Also framing, that is depend on my value, what is my value. And my life experience – that depend more on my values, and my life experience and the people around me**. So, yeah I think maybe after workshop I could communicate more, exchange my mind [my views] with others. And read more, especially read more is important. Yeah, do more reading. Maybe will help me to deep, to be deepen the [understanding], yeah.* *Also,* *independent thinking. From my point of view, what is my thinking and why I think this is right, and my source and evidence reliable, or, yeah. And also, respect others’ view even I don’t agree with them. Examine others’ view, yeah.* [Looks at notes]. *Ah, yes, I remember speech, when people do speech, they always infectious people emotional. They use this skill to persuade people. This is good skill for people to persuade others. And also, novelists, they use people’s story, also they make up a story to show their value.* I say that human beings love stories. *Even though they make up that, it’s important, it’s a good way to persuade people. Even though that is not critical, I think it’s good.*

I say CT is being aware of what affects people, e.g. stories. Dandan agrees.*We also don’t always follow our judgement. Yeah. Me too! I think others is right. But sometimes, no.*

[Continues to look at her notes]. *OK! From today’s [workshop], you show us this reading, you say, who is the audience for such as a newspaper, who is the audience for this text, and look at the source and evidence, [unclear] such as a professor and minister, they say blahblahblah, and also, “How has the issue or problem been framed. Are there any other ways of framing this?” And also, “Can you see any bias?” “Does this use any emotional language to persuade you?”* *So, after thinking, I think, I found read newspapers, also be critical, because before, I always think they are authorities, such as the Economist. I think they are authorities, but no, maybe not, they also write by people, people’s view.* I talk about how in the UK at least, there are many newspapers which present different views. *Such as the climate change, it’s* *the truth, people – no, this example is not suitable**.* *Such as the one thing, people be, got [unclear – mysticism?] they think, oh, this is good, but some people from negative perspective, they think this is bad. But the truth is not depend on this or this, their perspective, their views. The truth is the truth.* She tells the story of the blind people touching the elephant and getting a different view of what an elephant is; two big ears, one long nose, legs like pillars, etc.I ask her if it’s possible to see the whole elephant, and she thinks she can if she walks around it.