

Critical Thinking Exercises – Serbia Workshop

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Resources

Available from <http://CEMP.ac.uk/themes/criticalthinking/> (or look under my name in the CEMP site – it is being changed).

An exercises - introduction

The aim of the exercise is:

- to show learners what critical thinking in text looks like (an introduction to it);
- to indicate to them how to deepen critical thinking – to shift it from its descriptive forms;

I would see it as useful for undergraduates who are in the midst of their first degree – and more advanced students and teachers.

The material is derived from a new book about critical thinking by Jenny Moon that is published by Routledge in 2007. It is called '**Critical Thinking, an exploration of theory and practice**'. The material here is freely photocopyable. This is in order that they may be used as classroom exercises or examples. The exercise largely relates to the content of Chapter 11 in the book. To get free electronic access to the instructions for the exercise, the exercise itself or further examples of other exercises on critical thinking and other similar material, go to www.cemp.ac.uk/research/criticalthinking. The use and reproduction of the materials is free, though it would be appreciated if acknowledgement of the source is included.

Exercises for introducing and for improving the quality of critical thinking:

The incident on a walk

This is an activity of critical thinking about an incident and will be a common form of critical thinking in professional practice. In the last two accounts of this exercise, where the writing is deeper, there are more issues with which to deal and the text would be much longer. In these accounts, therefore, we deal mainly with the first of the points raised about the briefing. It is important to remember that it is the quality of the represented critical thinking that matters – and not the content.

The exercise is run in the same manner as 'The Park' exercise earlier on this handout.

Background: Sam and Gill are qualified walk leaders. They are leading a set of four one-day walks around the Shallow hills, on behalf of the Nature Authority. It is a fairly remote and rough area. An incident has occurred and they need to consider it for its implications for their practice as guides. They have a report to write on it. The four accounts are written at different depths of critical thinking

Account 1

Saturday 6th July: We began the circular walk of the Shallow hills at 9.00. There were ten walkers. The briefing was done. Sam and I (Gill) had talked about what we would do if some of the walkers were not equipped for a walk the hills in weather like that. It was very wet and the forecast was for it to continue over the whole weekend. Several of the walkers had lightweight jackets, one was without a hood and one had sandals on instead of walking boots. We were not really happy with the situation, but did not say anything - it was summer after all. Being warm, it was difficult to know what to say to them, especially when they had received the information pack and paid money to come.

We had walked for two hours in very wet conditions and stopped for coffee. Everyone seemed to be happy and they were all talking, including the two who subsequently had problems. We walked on and not far on I noticed that Sam was having difficulty keeping the back markers up to the pace. We had a long way to go that day and needed to push on. Then I looked back and he had stopped with them eventually I walked back. It seemed that one of them had got very cold and was wet through. We talked about the situation. She was getting a bit vague - a sign of hypothermia. She had to be got back. According to the plans that we had made, Sam took her (with her friend) off the hills. Meanwhile I went on with the rest of the group.

That evening, Sam said that the girls were very cold as he walked them off and one was well on the way to hypothermia - she kept wanting to lie down - a sure sign. It seemed that the incident affected the rest of the group quite a bit and we talked about that too.

There is some thinking to be done about walkers and their equipment. For example, what do we say to them if they are not equipped?

Account 2

Incident of hypothermia on the Shallow Hill walk, July 6th 2006 -

We met the group of ten walkers for a briefing and as a means of checking their equipment. It was very wet and from the forecast was likely to stay that way all weekend. Several had inadequate gear for the conditions. What could we do? I realised that we had not discussed how to deal with this situation. Should we have told them to go away when they had paid? How could we have sent them away at this stage? I felt caught between my instincts as a qualified leader, and the contract we have with the Nature Authority. I was a bit disturbed by this dilemma and because of this and the fact that it was actually quite a warm day we said nothing. Maybe we made a mistake.

We started the walk and they seemed happy enough. We were watching those who were likely to be getting wet. It was after a coffee stop that Sam noticed that the two we were most concerned about were dropping back. On talking with them, he found that one was shivering a lot, and seemed vague. She was clearly too cold to proceed. We put her into dry clothes and as agreed, Sam took her and her friend off the hills. He had difficulty with this; the woman kept wanting to lie down - hypothermia had set in.

I was surprised at the effect that the event seemed to have on us all. I was, of course, very conscious about looking out for signs of cold in the rest of the walkers and we were more careful after this incident. We did not stop for long at a time, for example, and kept moving.

So there were several things in this incident that we need to think about - what should we have done about the poor equipment at the stage of the briefing? Did we manage the situation right when we discovered that the girl was cold? Looking back on the event I recognise that there was the potential for a much more serious situation. We should use the incident to plan what we would do on other occasions which were wet or for other situations like this.

Account 3

Case of hypothermia on Shallon Hills walk series July 6th 2006

The walk was led by Gill D and Sam K and this is a jointly prepared report. The first issues on this walk arose at the briefing. There were ten walkers, eight were well equipped for the wet conditions and two inadequately dressed – in showerproof jackets, one with no hood. The forecast was for heavy rain all weekend, though it was warm. We were both concerned about the inadequate clothing, frustrated that they had ignored the instructions and worried about the reaction of the Authority if we sent them away. We should have been prepared to talk about it but it was difficult to deal with in this context. We needed to talk in private and make a decision about turning them away – even though they had paid. We did not create an opportunity for the private talk and, partly because it was so warm, we let them come. In retrospect, this was an incorrect decision.

We walked on for two hours, then stopped for 25 minutes. Prior experience should have indicated to us that you can get very cold if wet, even in warm conditions because then there is the issue of condensation. Stopping too long for coffee was probably a mistake. We walked on and at this stage, Sam noticed that one of the two with inadequate clothing was a bit odd. He spoke with her and observed early signs of hypothermia. I went back and we confirmed that she needed to be taken off the hills. We got warm clothes onto her with difficulty and Sam took her and her companion off the hills. During the walk off the hills, he observed that she was showing quite serious signs of hypothermia – wanting to stop and lie down etc. It was only afterwards that we realised how dangerous a situation this could have been.

I (Gill) walked with the other walkers. Because I realised how easy it was to get cold even on that warm day, I took a lot more care to watch for signs of cold and we did not stop anywhere for long.

There are several issues here. First (1) the adequacy of clothing and how we handle that at the

briefing; *secondly (2) the management of the walk, given that we had two ill-equipped walkers with us; thirdly (3) the management of the situation when we realised that we had a case of hypothermia and fourthly (4) the management of the rest of the walk. (only the first of these is discussed below)*

1. With regard to the clothing issue, we were disturbed by that. The girls had had the instructions but maybe they thought that they had adequate clothing – it is hard to tell what people understand by ‘adequate clothing’. Perhaps the instructions need to be better and they need to be clearer that people could be turned away. In that respect, we were worried that the Nature Authority might not support us if we turned them away. The walkers had, after all, paid for the walk, but safety is an issue that cannot be ignored. There was a difficulty too in how we could manage the situation at the briefing – we need to ensure that we do talk in private and share opinions after the briefing and before we walk. There may be things in that decision-making process that also we need to discuss.

Account 4

Shallon Walk July 6th 2006

A case of hypothermia on a one day walk

This is a jointly written incident report (walk leaders, Gill D and Sam K). We have discussed some of these issues with colleagues before writing it and this version of the report includes issues raised by our colleagues. We note how easily this situation that we describe could have become a dangerous one.

The incident

The ten walkers were sent usual instructions about the importance of appropriate equipment in advance. At the briefing, we noted that two were ill equipped - having shower jackets, one without a hood and one with sandals, not boots. It was very wet, with rain forecasted to continue but it was warm and we let them proceed. When we talked about this later, neither of us was happy about the decision that we made at the time, but we tended to hold back that expression of doubt – perhaps because it was the easier option to let them walk. We have realised that we need to be able to get away from the group to have a conversation after the briefing, sharing any concerns – and we need to be honest – only then should we make a decision.

We walked for two hours, stopped for 25 minutes, then walked on and it became evident that one of those in inadequate clothing was becoming hypothermic. Having put warm clothes on her, Sam took her and her companion off the hills. During the walk off the hill, it became evident that the hypothermia was quite advanced. The event had a considerable impact on the day and we wish to consider our management of the situation within this report, as well as the incident itself.

Considerations

There are several issues here for more general consideration.

- 1 The broad issues of equipment; the instructions about it in the joining information – and the management of ill-equipped walkers at the briefing.

2 Our management of the walk under those weather conditions, given that we had let ill-equipped people come.

3 Our handling of the case of hypothermia.

4 The overall management of the walk once the incident had happened.

And other issues may emerge.

(Only the first of these points is discussed below)

1. We deal first with issues around equipment, reference to equipment in the joining instructions and the management of the briefing. In going over the situation in several discussions and in writing this report, we feel that we made an error in allowing the ill-equipped walkers to come with us on that walk.

We noted that the walkers had received instructions to wear suitable clothing and they had a warning that they may not be able to proceed if they did not wear enough. However, it is very difficult to turn them away at the briefing situation. They have paid for the walk, traveled here, and are expecting to go walking. However there is the safety issue, obviously theirs, and, one could argue, that of the other walkers who were left with one leader for a long day in difficult conditions.

Clearly we have to be able to turn people away on occasions. It may be that the joining instructions could be strengthened. For example, they could stress the distinction between waterproof gear and showerproof jackets. It is possible that they girls thought what they were wearing was adequate. Just because we know the nature of proper equipment does not mean that more casual walkers understand. They probably had no understanding of just how wet these hills can be. It would be useful to get the opinions of the occasional walkers about the issues of clothing and what they think they need for particular conditions.

There is also the relationship between us and the Nature Authority. Both of us, as leaders, were disturbed by the kind of relationship we have with the Authority and it influenced in our decisions on the day of the walk. We know of an incident four weeks ago when a walker in sandals was turned away. He complained to the Authority and the guide was 'ticked off'. We, as leaders, need to feel confident enough to turn people away if necessary and we should not be concerned about the Authority when we make such a decision. We have talked to other colleagues and we feel that we would have better confidence to make decisions if we knew that we had the full backing of the Nature Authority.

A problem arose at the briefing when we did not feel at ease to have a private talk away from the group in order to discuss our concerns and make a decision about action. There seemed to be an assumption that the briefing was about the walk itself and not about preparedness for the walk. We need to be clearer about the briefing, and to build in a brief meeting between the two leaders in order to go over any concerns (there could be other issues) and – as would have been in this case, to decide on whether we should turn away the ill-equipped walkers.

Actions on point 1: (Gill and Sam drew out issues for action or for further consideration at a meeting with colleagues at the ends of consideration of the points made)..

A first attempt at singing

Background: Jay is on a professional education programme and is learning about how to think critically about her actions or the actions of others. She is expected to demonstrate that she can consider critically her experience or evidence about her action so that she can learn usefully from it. This is series of attempts to engage in critical thinking done in the course of an exercise. The main concern of the tutor is that she can demonstrate sufficient depth in her thinking so she can make appropriate judgements about how to learn from her performance and thereby work out how to improve. She takes the example of learning to sing.

Account 1

This is about my relationship with singing. I cannot sing. I always thought that it is because of what my mother always said about singing (an indulgent waste of time) - but I have now sung two songs in public at the Golden Lion folk night. I used only to be a storyteller there. I practiced the songs, thinking that I might get around to singing but I kept making excuses. Friends said I could sing but I did not know if I could believe them. I had gone for a long drive that day that I sung and I worked at learning the words – and the idea of actually doing the song grew. I took the song-sheets as I set out for the pub. Sam came up as usual, arranging the list of performers for the evening. He asked if I had a story – and I said that I might surprise him.....and left it at that...

Others sung and played. The people before me were superb – unfortunately. Then it was my turn. I walked up, sweating. I had rehearsed how I would introduce myself. I did that and then I could not find the first note. I tried again and it was there and my voice came - 'As I walked out one evening fair.....' – The Dark-Eyed Sailor. The words were on the sheet in front of me and I held onto the music stand but then I wanted to move and let go and then I was swaying in an ungainly manner. My hands were everywhere, holding each other, flaying about, trying to express something, but the words did flow and people seemed to be listening. I thought: 'they are surprised to hear me sing. Good!' People joined in too. I liked that and the way in which my voice emerged from the mass of voices when I was into the verse again. I had to keep referring to the words though because I did not know them enough. This tied me to the spot.

One song went and then there was the other. I fluffed the start again – but then I was off and the flow was on. There were wobbles when the nerves got the better of the voice. There was a misreading of the lines - whoops. Then there was a stage when thoughts got in the way ('What am I doing here? Stick to what I can do next time') but I got to the end and, slid back to my seat amidst clapping. 'I wondered if the clapping was just polite or if it was sympathetic or for me making the effort. But I had done it.

Account 2

I have now sung in public – at a folk night - on my own for the first time. I had it in mind for a while that I would sing sometime despite the various messages from my mother that we are non musical and was there something about music being an indulgent waste of time. I had

questioned this but had not countered it until now. If I am so non-musical, how could it be that I actually liked music so much? A couple of friends hearing my nervously delivered bars said that they thought that could sing but I needed confidence. Were they right or just patronising me? What does it mean 'to be able to sing', - is it more than to keep in tune? I even found it difficult to ask these friends about these things because they might laugh if I said that I might actually want to sing in public. I do know that I like to perform because I tell stories in public.

I practiced the songs, but was not sure that I would really do it. However I have a sense of adventure - you only live once so I do take risks. When, at the session, Sam asked me if I was going to do my usual story, I heard myself saying that I might surprise him – I was then on the slope. I do like to surprise people – so that was a further drive.

My turn came and I was there. I put the song-sheets on the stand. Having words to follow is an odd experience for a storyteller. Stories are in my head and storytelling is describing a series of visual images. I am free to move. Being tied to a sheet of someone else's words was strange.

I sung the two songs. I fluffed the first notes of both because I could not find notes on which to start. How do I manage this another time – and will there be another time? There are lots of things to think about – that I felt I got wrong this time - what should I do with my hands? How should I move when singing? How do I express the ideas in the song? There is some mental directive too, about looking as if I am enjoying the song. I was asking myself if people were just being tolerant when they clapped – or was there something to clap about? I realise that I have now played the card of 'This is my first time of singing'. I no longer have that excuse.

Account 3

I have now sung two songs in public in a folk club. This was a challenge and an achievement for me. I already performed as a storyteller because I liked performing. I assumed that I could not sing. I want to reflect on what this experience means to me. There are several things: the taking of the risk; the motivation to sing; the fact that I actually sung and broke a long established directive. What did I learn from it all and where do I go from here?

So I look at taking the risk. I do take risks. I want to go on learning and getting the most out of life. I also value creativity – doing new things. It was good and satisfying doing this new thing. Nerves and anxiety of 'am I making a fool of myself?' was better than the frustration of sitting back with excuses as before - so emotion was both stick and carrot. My emotional state was also related to old directives from my mother that 'we are not musical; singing is indulgent' – I seem to have interpreted that as 'do not waste time with music' because 'we' cannot do it. How deep rooted are these directives! Breaking it was good.

I think about the way in which I sung. Storytelling is free from sets of words and for me physical movement seems to enable the flow of the story. Singing is different. I tried to learn the words to the songs, but for security I needed the words in front of me and I sung from them rather than from memory. And – to read I need glasses – and somehow they get in the way of

the flow. I need to focus on letting the song flow and remove as many of the constraints as possible – nerves, eventually being one of them.

Nerves – what are they about? Getting as far as doing this song involved difficult processes that only started with mother and ‘we don’t sing’. I always sung to myself and liked the feel of singing in my mouth and to my ears – was there a contradiction? Eventually I worked up to saying to an opera-singer friend ‘I would like to be able to sing’. He sung something and I followed. ‘Yes, he said’, you can sing’. Then he wandered off singing his own songs. Obviously I could not sing enough to engage his interest. That about sums up several experiences of me – very tentatively seeking help then not getting what I needed in terms of support or positive comment and then feeling disenchanted again.

I realise in thinking back, I introduced myself that day with: ‘This could be ‘try anything once’ or ‘you’ve got to start somewhere’. I think I got to the root of something in those flippant words. There are two issues – that performance and whether I do it again. Flippant words can carry truths. Is the issue the doing of it once or the idea of having started something to continue. I have focused so far on ‘having done it once’. If I decide to continue, I need to question how I can improve my voice now. There were a few positive comments after I sung and they clapped – as they do – but that is not enough. I have to overcome this diffidence about talking with others about my singing. I need gentle honesty in comments from others. I have to face up to my fragility and nerves and get over that. I have to deal with the idea of being a beginner too – and as I write, it opens up. It is as if I have opened a door in my thinking, though I need to keep going back and checking that I am opening ‘helpful’ doors.

Account 4

I think back on my first singing spot in front of people in a folk club. It was low-key stuff, but I want to learn both from it and how to learn from it. My first thoughts on it were about ‘surface’ things – emotions, my confidence, the fact that I was contradicting a long-held belief-system. Those things were what I thought about at the time – but I realise that I just have to deal with that stuff. I will deal with it in time – but only if the singing itself is right. Sandy pointed out that that is the very point that I largely have ignored in talking around the experience. Improving the nerves is pointless if the singing is rough (and vice versa – I do need to learn to manage nerves and so on – but alongside the development of the singing.

I asked Janice for some tips. She is an experienced singer and heard me that night. It is hard for me to ask for help. I am used to being able to do things and I hear inside me a voice saying ‘I can get it right on my own’. But I am a novice and one with an ‘inexperienced’ ear as well as a novice voice. Janice was gentle. She gave me picked up three things to consider and from those, a few more came to mind. On the technical side, she said that clearly I need to open my mouth more and that will let more sound happen. I tried this and it works. I imagine tension tightens up the mouth. I need also to pay attention to my breathing – it was all over the place that night. Janice suggested an exercise which I seem keen to do – good!

Janice is one of those who says that one must learn words in order to concentrate on expression of a song. I fought that one – words are a prop; and when I am nervous I can forget anything.

Other people use words too...but she insisted. I guess I can learn words if I keep on practicing in the car – a good place! It was singing in the car that enabled me to realise how my voice warms up after a few songs – it gets louder. I need to warm up before I sing to anyone.

So I need to take on board that I am a novice and that practice is what leads to improvement – and because practice will enable me to sing better, I will be less nervous and remember the words better and not need to read them - so I can express myself better and feel more confident and less nervous so it goes on. It is all linked – how could I have doubted the worth of practice? It is like skiing, drawing, craft work – everything.

I think about how initially my thinking about singing was all caught up with what seemed to be the immediate and emotionally dominated parts of the experience. It was only after wading through this stuff that I could begin to unearth the quality of my singing as an issue and make proper judgements about what needs to be done there. That is a basis from which to move forward. I look at what I have just written and wonder if I could have seen more clearly the emotional and performance issues as well as the learning issues in one 'go'. Perhaps if I had not written about this so soon after the event – when I was still caught up with the feelings, I could have avoided that stuff, though it is relevant – and the emotions made the experience feel very close up and real. In future critical thinking about myself, I should try writing about some things straight away, accepting that there is further to go with it – then leaving it for a week or so and see if the perspectives change. I think they might and I might be able to get straight to the point.

Shifts in the texts of the scenario as the critical thinking deepens

In the shift from superficial critical thinking to deep critical thinking, text shifts in the following ways:

- - from description about the surface matters (possibly a narrative) to text that is shaped by the critical thinking process towards the required outcome(s). There is a shift from a structure in which there is little focus – to a structure that is focused and purposive;
- - from the absence of argument and comparison to the presence of argument/comparison;
- from dealing with surface characteristics of the words and ideas in the task to a deeper consideration (eg, assumptions in word meanings will be dealt with in deeper accounts, but not in descriptive accounts);
- from a descriptive text to one in which questions are raised, to one in which there is a response to questions raised;
- from not noticing or not dealing with emotional aspects of the issue – to noticing, dealing with and reasoning about emotions in relation to the issue;
- from the giving of unjustified opinion as conclusion to the presentation of a considered conclusion based on evidence provided with a note of limitations of the thinking;
- from a one dimensional account (with no recognition of there being further points of view, perhaps of others) to a recognition of other points of view;
- from the no recognition of the role of prior experience to the taking into account of prior experience and the effects it might have on judgement;
- from a text in which there is a drift from idea to idea rather than a deliberated persistence in dealing with selected and relevant topics
- from no metacognition /reflexivity, to reflexivity and metacognition.

Framework for critical thinking and its representations

In these descriptions of critical thinking, the word 'issue' is used as a shorthand form for the topic that is under consideration or the task. Different activities of critical thinking and different forms of representation may necessitate the modification of the language

Descriptive Writing with little evidence of critical thinking

The text is descriptive and it contains little questioning or deepening of any issue. It may provide a narrative account which is from one point of view, in which generally one point at a time is made. Ideas tend to be linked by the sequence of the account rather than by meaning and there may be no overall structure and focus.

There is no real argument and not much comparison

Any introduction to the issue to be examined may tend to miss the point of the issue and pick up the surface characteristics of it – such as words used, rather than the meaning of them. It is taken at face value.

Assumptions are likely to be left unexamined and probably unnoticed

The text may refer to past experiences or opinions, but just as direct comment with no analysis and all in the context of this single viewpoint

There may be references to emotional reactions but they are not explored and not related to any conclusions that may be drawn.

There may be ideas or external information, but these are not considered in depth, questioned or integrated.

There is little attempt to persist in the focus on particular issues. Most points are made with similar weight.

A conclusion may either not be properly drawn, or it is drawn but it is not justified by the text. It may be opinion and unrelated to any reasoning in the text.

Descriptive text that moves towards critical thinking

This is similar to the above, but there is some attempt to recognise the task and broadly but still descriptively, structure the material towards the reaching of some sort of conclusion. It is not the kind of structure that will enable proper critical thinking.

There may be some comparisons made between ideas but probably no more than two ideas at a time.

There a form of introduction of the issue to be discussed, in which something of the critical thinking task is recognised,

Assumptions or points for analysis may be noted or questioned but they are not explored in depth – or they are fully related to the task or not drawn into any conclusion

There may be some drawing in of additional ideas, reference to alternative viewpoints or attitudes to others', comments but these are not explored at depth or focused on in the working though the issue towards a conclusion.

There is recognition of the worth of further exploring but it does not go very far.

Any conclusion, tend to be partly opinion or not fully or justified by the text.

Critical thinking (1)

The structure of the text begins to change towards being a vehicle for critical thinking. It is no longer a straight-forward account of an event, but it is definitely reflective and analytical and the writing seems more intentionally designed and focused. The issue is introduced and probably the wording is explored in order that any deeper meaning or assumptions can be elicited.

There is a more appropriate conclusion that does relate to the text, drawing from it and relating back to the issue raised in the introduction.

There is evidence of external ideas or opinions and where this occurs, the material is subjected to reflection and consideration in relation to the task.

There is appropriate questioning of the ideas, and assumptions; some obvious mulling over. Assumptions are examined and sub-conclusions are drawn into the text.

Where relevant, there is willingness to be critical of the action of self or others. There may be evident willingness to challenge one's prior ideas or those of others.

There is evident 'standing back' from the event, consideration and reconsideration of it.

There is recognition of emotional content, a questioning of its role and influence and an attempt to consider its significance in shaping the views presented.

There may be recognition that things might look different from other perspectives; that views can change with time or the emotional state. The existence of several alternative points of view may be acknowledged, though not necessarily fully analysed (depending on the task).

The text may recognise in a limited way that personal and others' frames of reference affect the manner of thinking, but analysis of this is not fully demonstrated in the making of the judgement or conclusion.

The conclusion is based on evidence in the text.

Critical thinking (2)

There is an introduction of the issue, an examination of the wording (eg meanings and assumptions) or context of it as appropriate. It may be reinterpreted so that it can be more clearly analysed.

The context, purpose for or limitations of the current thinking may be mentioned.

The selection of the evidence for examination is appropriate and sufficiently wide ranging.

The evidence is examined in a systematic manner that is well structured in relation to the task or issue. There is an appropriate balance between discussion of evidence and deliberation towards the response. There is good 'signposting' within the writing.

The account shows deep reflection, and it incorporates the recognition that the frame of reference or context within which the issue is viewed, could change and affect the conclusion.

A metacognitive stance is taken (ie there is critical awareness of the processes of critical thinking in themselves).

The account may recognise that the issue exists in a historical or social context that may be influential in the on the response to the task. In other words, multiple perspectives recognized and account is taken account.

There may be evidence of creativity in the processes of thinking and reasoning or in the range or nature of evidence used in the critical thinking

Self questioning and possibly self challenge is evident.

There is a recognition of any influences on thinking and judgement such as the timing of the reponse, emotion, contextual matters, prior experience, personal interest in the outcome etc.

The conclusion effectively draws together the ideas developed in the text as evidence and makes a judgement in response to the topic introduced or given, recognizing any particular limitations of the judgement.