

## Cross Questioning Your Project to Achieve a Precise Research Question

RQ. → Results  
↓  
Text

This questionnaire will help you to make your precise question explicit. As is usual in cross questioning, you will be bombarded with questions which sound similar but focus on a slightly different aspect. You are allowed to get annoyed, but try to answer all the questions as fully as you can at the moment. Today you have around 30 minutes to complete the questionnaire. It is helpful to do this cross questioning several times in the course of your academic writing project. Even with the redundancy and the occasional frustration, it provides clarity about where precision is lacking and where implicit precision is already present but not evident explicitly.

**Let the sentence introductions stimulate you and complete as many of the (appropriate) sentences as you can<sup>1</sup>:**

**1. I am studying, working on, researching ...** the network structure and node & network properties of P2P systems.

**2. because I want to find out**

who/what

when

where

which

why

how the nodes connect to each other, how do they behave, --

whether

(any others?)

**3. in order to understand**

how the network looks like, and how the network is resilient to failures, --  
& how the performance could be improved

why

whether the nodes behave maliciously

(any others?)

<sup>1</sup> If there is not enough room, please use an extra piece of paper

Answer the following questions according to what you know at present:

**What do you find interesting about your topic and why? (2 – 3 complete sentences)**

P2P activities form around 50% of overall network traffic. Improving the <sup>current</sup> design of popular P2P systems will be beneficial for the users of these systems<sup>⊗</sup> as well as for network operators (decreasing their operational costs). <sup>⊗</sup> since they will get a more secure and better service.

**Which question will your work answer? (one complete sentence)**

How can large-scale distributed systems be monitored with least influence (least intrusive way), and how can these systems be improved accordingly?

**What results are you aiming for? Who will find them useful? (2 – 3 sentences)**

I'm aiming at developing a monitoring system that can monitor P2P systems effectively.

The targeted system could be used by network operators and researchers.

**Which method(s) will you be using? (e.g. empirical research? literature review? ... ?)**

My main method is empirical studies; i.e. real-world measurements. This method could be so assisted by simulation studies, and theoretical analysis.

**How do you plan to proceed in detail? What will you do first? And after that? What is your methodological approach? Which crucial literature will you be using?**

My plan is as follow

- Study the source code and/or documentation of the targeted system.
- Design a monitoring system.
- Measure / monitor the system in reality.
- Find system's strengths & weaknesses from theoretical & measured results.
- Try to improve weaknesses → <sup>& analyse</sup> measure / the modifications & compare with the original design.

**In which area of your field is your project located?**

Peer to peer (P2P) / distributed systems

**What is the topic you are working on?**

Monitoring large-scale distributed systems

**Which problem will your work solve?**

Intrusiveness and high costs of existing monitoring systems.

**How do you want to solve it?**

By analyzing the targeted system, and try to locate monitoring nodes at some strategic locations such that their influence is as least as possible, but they ~~OTD~~ still ~~can~~ should be as much representative as possible.

**Which other problems are there in your field of research – ones that you know about but will not deal with?**

**State as precisely and briefly as possible: What is the question which you would like to answer with your work?**

**If you have already discovered and written something: what is the question for which your results provide an answer?**

**Why is it important to work on your research project?**

**Has somebody else already worked on this question? Which results did s/he obtain?**

**Which method(s) did s/he use?**

**In case your question has not yet been asked or worked on: which problems in this field have already been dealt with? What results have been obtained, and with which method(s)?**

**Which method(s) will you be applying to work on your question?**

**Imagine that your project – as it stands (maybe only in your thoughts) – is finished: How would you assess your achievement? Which task(s) for future research will develop out of your work?**

**What are the individual steps in your work?**

**What do you want to achieve in each step?**

**Which step is the most important? Which train of thought would you like to focus on?**

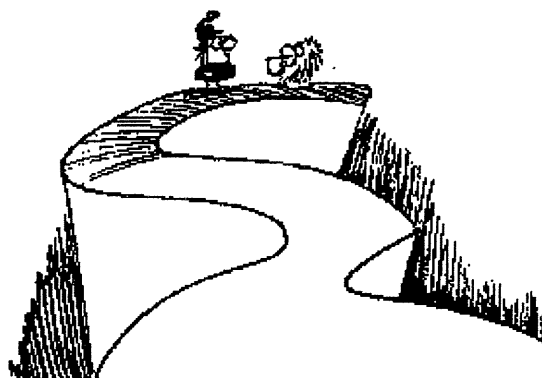
**BROOMHILDA**

I JUST WROTE  
A SHORT STORY.  
LISTEN ...

"Once upon a time  
there was a lovely  
young princess who  
lived in a castle in a  
far-off mythical  
kingdom ...



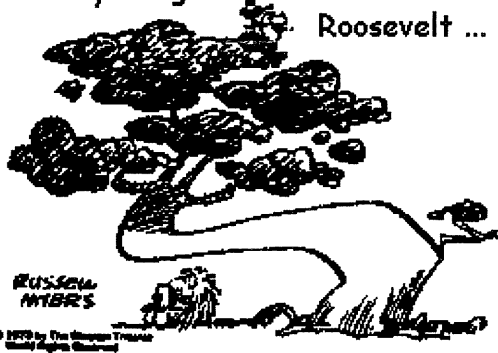
The castle was designed by her  
uncle Hernando who was an  
architect in a nearby city. He  
was also a fine family man and  
was once an excellent swimmer ...



He competed against Johnny Weismuller  
many times during the late 1920s.  
This was the time of the great de-  
pression during which many huge  
fortunes were lost ...



Next door to Hernando's office  
was a tattoo parlour. Many of  
our country's brave young  
fighting men went there for  
tattoos of their mothers,  
Barney Google and Eleanor  
Roosevelt ...



It was these same young men  
who displayed such courage on  
Bataan and Iwo Jima. The courage  
that made this country safe for  
you, me, our children, zoo animals  
and restoring old Hudsons as a  
hobby... The End"



WELL, YOU'VE GOT  
TO ADMIT, IT HAS  
SCOPE!





Compare the language in the following extracts:

(Which is more academic?)  
(Extract features of academic texts!)

Text A

We all know that if young children don't learn to read well they won't succeed at school.

More boys seem to be having difficulty with reading than girls. So it's not surprising that girls are doing better in the VCE results.

Text B

The relation between children's early literacy levels and academic outcomes is well established (Bloggs 1994; Carmody 1999; Drisdale 2000). A recent study of the literacy levels of grade 3 children attending state schools in Victoria revealed a correlation between gender and reading skills: it was more often boys who fell below desired standards (Arbott 2001, p.76). If intervention measures are not developed to address boys' early literacy needs, their longer-term academic outcomes can be expected to suffer.

Most people would correctly identify Text B as being more 'academic' than Text A.

<https://airport.unimelb.edu.au/gate1/writing/features.php>

- Ref. (cite)
- no abb.
- definition
- real-world example & numbers
- the language
- more precise
- no generalization
- academic words ☐ (some of Latin origin)
- plan to solve the problem

Schreibzentrum

## Scientific precision in writing = writing so that being misunderstood is impossible

- **use the right word for the right thing** (e.g. *affect* does not mean *effect*; *expectations* are different from *conclusions*, etc.)
- **use specialist terminology** (e.g. *Calendula officinalis* and not *marigold*)
- **always use the same word for the same thing**, avoid “stylish” variants for important concepts, e.g. *memory* is always referred to as *memory* and not as: *recollection*, *reminiscence*, *summoning up of past events*, etc.
- **combine words precisely**: replace *consulting relationship* with *relationship between consultant and client*; replace *Hand me the red and yellow balls* by *Hand me the red balls and the yellow balls* (i.e. *I don't want the two-colour balls*)
- **avoid ambiguity in words, phrases, and sentences**: *The child needs to be given more nourishing food* could refer to greater quantities of (nourishing) food or food with improved nutritional qualities
  - **avoid lexical ambiguity**: *bi-weekly* can refer to once every fourteen days or twice within seven days
  - **avoid syntactic ambiguity**: replace *Students hate annoying professors* by *Students are reluctant to make appointments with their professors*
  - **use pronouns carefully**: replace *The compiler did not accept the program because it contained errors* by *The program did not compile because it contained errors*.
- **check that verbs and subjects agree in person and number, that adjectives/pronouns agree with the noun/antecedent being modified**
- **be precise**: replace *The treatment increased the amount of XXX in YYY. by Treatment produced a ten-fold increase in the concentration of XXX in YYY, compared to pre-treatment levels.*
- **be specific**: replace *Smoking is the world's No 1 killer* by *Statistics show that, world wide, more people die from diseases caused by smoking tobacco than from diseases unrelated to tobacco smoking.*



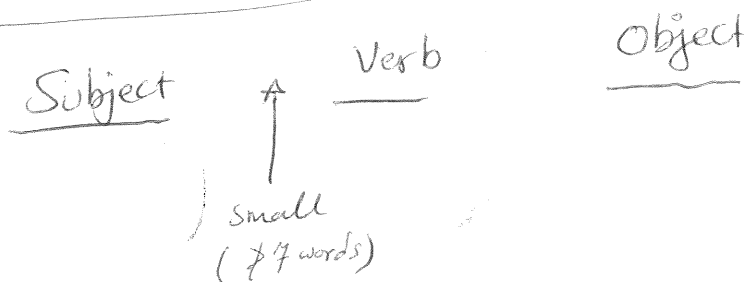
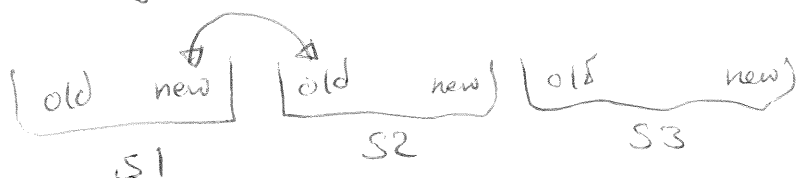
# Native (N.S.) speaker expectations (Writer's responsibility)

[for good academic style]

- A = accuracy
- B = brevity
- C = clarity → always wins!

## \*How to get clarity?

### Linking sentences



### \*Linking ideas

→ using transitional words / expressions (signposting)

- N.S. use much more signposting than N.N.S.

## Transitional Words and Expressions

(signposting)

Transitional words provide directional clues for the reader. They show the relationship between sentences in a paragraph. For example, the word **furthermore** says, "Wait! I have still more to say on the subject." So the reader holds the previously read sentences in mind while reading the next few sentences. This is a list of transitional words and expressions.

INTENTION OR RELATIONSHIP	TRANSITIONAL WORDS AND EXPRESSIONS
<b>Amplification</b>	For example, in other words, that is
<b>Cause and effect</b>	Accordingly, because, consequently, for this reason, hence, since, thus, therefore, if... then
<b>Concession</b>	Accepting the data, granted that, of course
<b>Contrast or change</b>	In another sense, but, conversely, despite, however, nevertheless, on the contrary, on the other hand, still, though, yet, whereas
<b>No change</b>	Similarly, moreover, also, too, in addition, likewise
<b>Emphasis</b>	Add to this, besides, in addition to this, even more, to repeat, above all, indeed, more important
<b>Equal value</b>	At the same time, likewise, similarly
<b>Increasing quantity or addition</b>	Also, besides, furthermore, in addition, moreover, too
<b>Order</b>	First, finally, last, next, second, then
<b>Summary</b>	For these reasons, in brief, in conclusion, to sum up
<b>Time</b>	Then, since then, after this, thereafter, at last, at length, from now on, afterwards, before, formerly, later, meanwhile, now, presently, previously, subsequently, ultimately

<http://www.columbia.edu/cu/ssw/write/handouts/trans.html> (9.10.2010)

The following set of sentences can form a paragraph. However, without relevant connectives linking the sentences together, the paragraph would lack coherence.

Write a coherent paragraph linking the given sentences, using appropriate connectives.

- \* For that reason, {
- \* Likewise, {
- \* Besides, {
- \* That is {
- \* For example, {
1. School effectiveness is influenced by more than the staff and students.
  2. Home/school relations and parents' understanding of the school are important (Gauthier, Pechone and Shoemaker 1985).
  3. Cooperation between teachers and parents has a positive effect (Seeley 1989).
  4. Resources and government funding are essential.
  5. Students from well-funded schools tend to do better.
  6. Whitlam High School, which is well-resourced, produces high-achieving students every year.

<https://airport.unimelb.edu.au/gate2/writing/draft/effective.php>

## Tips for productive feedback on text samples

### A (author) and B (reader) prepare the feedback

#### **Before B reads the text, the precise situation must be defined**

- What kind of text is it (e.g. final thesis, conference abstract, seminar paper, etc.)?
- A should inform B about the context: what is the topic of the text and of the various sections? How does each section contribute to the overall topic? Which section is the text sample under scrutiny taken from? How does the sample contribute to the section? (one sentence each)
- What kind of feedback does A want (e.g. feedback concerning comprehensibility, redundancy, spelling, etc.)?
- How much time is A willing and able to invest in revising the text?

### B reads the text sample

B should check only for comprehensibility in the first reading of the text:

- B thus looks for and underlines inaccuracies, ambiguities, logical flaws, etc., and notes questions in the margin: "what does this mean?"; "whose opinion is this?"; "source?"; "why do you say this at this point?", etc.
- If the text is also to be checked for strength of argument, style, grammar, spelling, etc., the comments in the margin should be marked accordingly (e.g. "c" for comprehensibility, "St" for style, etc.)
- B should also point out things that have been well done (underline and comment: "plausible", "nicely put", etc.)

### B gives A feedback

B should give her/his feedback as briefly as possible in the following order:

- **Name the good things first:** e.g. "I think the structure is clear", "Nice to read", etc.
- **Then always name the *specific passage* being referred to:** page, paragraph, line, and wait until A has found it
- **Clarify which *text level* is being commented on:** "My comment refers to the term, sentence, transition from Y to Z...." etc.
- **Formulate every remark in first person:** e.g. "I don't understand this..."
- **Formulate every critique as a question, if possible:** e.g. "I wondered what this means..."
- **A should not comment on B's feedback:** A's attitude while listening is "Thank you, I will think about it!" (A should explicitly *write* what is *meant*, not tell B afterwards!)

### 3 I. INTRODUCTION

DRIVER drowsiness is a major cause of road accidents because perception, motorical abilities and motivation change [1]. That's why a significant number of drivers cause accidents in an environment, where the demands on the driver are relatively low at a first glance and a considerable amount of vehicle crashes occur on straight highway roads [2]. An apparent characteristic of many highways is a low curvature, which can lead to a very simple driving situation. Under-arousal induced from prolonged rural highway driving again can develop fatigue and sometimes is the cause for car accidents Kenny [3]. Sustained <sup>Hyp-</sup>under-arousal leads to monotony states of the driver [4], which are expressed by a lower driving performance or a increasing number of driving mistakes. Beneficial for an increasing under-arousal is the absence of action alternatives [5] and a low level of stimulus <sup>like</sup> e.g. a highway with a familiar environment [6], low curvature, a sparse traffic density and low roadside visual stimulation.

15 Lyznicki, Doege, Davis and Williams [7] <sup>They concluded that</sup> performed a literature review to find out how many sleep induced accidents occur. ~~They came to the conclusion that~~ sleepiness is involved in 1 – 3 % of all vehicle crashes in the USA. <sup>Fatal</sup> Hell stated that  $\frac{1}{4}$  of all ~~deadly~~ accidents on German highways are caused by drivers who fall asleep [8].

Horne and Reyner [9] could show that sleepiness played a greater role on motorways than on urban or rural roads. They found that as <sup>many</sup> much as 20% of vehicle crashes on British motorways occur due to drivers falling asleep at the wheel. Not only is the number of sleep related accidents relatively high compared to other accident causes, but also are the consequences of highway crashes higher due to greater vehicle speeds [10].

24 To develop and improve new advanced driver assistance systems for drowsiness detection in order to improve traffic safety for all participants, it is often necessary to roll out road trials. For this purpose it is crucial to know whether the subject is drowsy or not during its test drive. A commonly used method is a driver rating done by a questionnaire like the Karolinska Sleepiness Scale (KSS) [11]. One disadvantage of this rating is that a driver, who doesn't use this scale like he is instructed to do, can corrupt the recorded data and thereby potentially reduce the quality of the developed system. One alternative is the measuring of various physiological data. Another alternative is a drowsiness-rating by a skilled expert, which is non-invasive and doesn't have an influence on drivers' behavior. } <sup>clarity</sup>

33 This article focuses on observer ratings of drowsy drivers. A method was developed to rate the drowsiness level by observing a video of the driver. For this purpose the observer watched three video-images (two for the driver and one for the environment).

36 Interrater-correlations and test-retest-correlations were calculated to quantify the reproducibility of the ratings. Correlations between the observer-rating and the drivers' KSS-rating were calculated to validate the video-rating of drivers' drowsiness. There for a three hour test track study with 46 subjects was chosen where the drivers had to rate themselves using the KSS. This study was carried out on behalf of an industrial partner ...