What are the key difficulties in measuring accuracy of knowledge? That we do not have direct access to the truth; our knowledge itself is our closest approximation to it so on the face of it the required comparison does not seem to be available; that the standards by which we try to measure accuracy in different areas might not be the same.

What are the implications for knowledge of describing it as more or less accurate? That knowledge need not be certain; there is room for doubt; that the justified true belief model of knowledge might not be helpful; that we might have to accept and be tolerant of shortcomings.

How can knowledge become more accurate? Through deliberate minimizing of error; as a result of new breakthroughs; or from cumulative work; through the construction of a new "map".

Which areas of knowledge appear, at a glance, to have become more accurate, and which not? The sciences seem to demonstrate increasing accuracy while the same claim might be more difficult to sustain with the arts; might need to take into account shifts in the objects of study in some areas such as the human sciences.

What kinds of development of knowledge might not count as increasing accuracy? Maybe just more knowledge; or filling gaps between items of knowledge that are already highly accurate...

[The above is for illustrative purposes only and is not offered as a model approach to this title.]

Ideally, such questions and the discussions that they inspire can be organized into a logical sequence such that they form the backbone of the essay — each contributing to the overall answer to the prescribed title. The content of each paragraph might constitute a response to one of these questions. Hence such knowledge questions can act as markers in the development of the argument and pave the way from title to conclusion. As described here, the identification or formulation of these questions can play a crucial role in the exploration and planning phases of the essay task, and when the final essay is constructed it may not be necessary or desirable to the flow of the arguments for the questions to be stated explicitly. A sequence of paragraphs each prefaced by "my next knowledge question is..." does not read well and is likely to appear disjointed.

So, in summary, knowledge questions are NOT "alternatives" to the title, and they are best thought of as aids to the exploring and planning processes such that they become woven into the analysis but not necessarily stated explicitly in the final essay.

Key Points

- While there is a great deal of choice available to the candidate in terms of alternative titles
 and parts of the TOK course that can legitimately be explored within the one title that is
 chosen, the exact wording of the title must be respected and examined very carefully.
- Writing "my knowledge question is..." near the start of the essay is usually a recipe for disaster as it means that, in effect, the title has been displaced.
- Knowledge questions should be thought of as way-stations on the journey to an answer
 to the prescribed title useful in explicit form while exploring the title and planning a
 response to it, but not necessarily stated explicitly in the final text.

The role of ways of knowing

At the last course revision, the number of ways of knowing (WOKs) included in the subject guide was increased from four to eight. The rationale for this change was not to boost the relative contribution of ways of knowing to the course but rather to emphasize that the set of attributes available to the quest for knowledge is more complex and interactive than was previously suggested by the more restricted suite of four (see TOK subject guide, pages 8 and 27). In the spirit of this change, teachers and candidates are strongly encouraged to be very circumspect about treating ways of knowing in isolation. Unfortunately, it seems that many schools still take precisely this approach to TOK, with an extended tour of ways of knowing before addressing other aspects of the course. A consequence is that a selection of ways of knowing is often "laid on the table" at the start of essays in a way that does not prefigure sound analysis. Examiners often find themselves reading something like:

"In this essay I will be focusing upon the human sciences and history as areas of knowledge, and my ways of knowing will be intuition and memory."

While most titles do require a clear statement of areas of knowledge to be addressed, there is no corresponding expectation for ways of knowing (except perhaps for the minority of titles which take ways of knowing as the main focus). A definitive identification of them at the start of the essay is often unnecessarily limiting for the subsequent analysis.

Because of the way the course is presented, and because of seemingly widespread practice of affording ways of knowing a privileged position in course structure, there is a strong tendency for candidates to treat ways of knowing as the primary elements of TOK analysis. This leads to a number of serious issues. Firstly, candidates tend to invoke them as "answers" rather than starting points for analysis, as if naming them were enough. The precise nature of emotion or imagination, for example, is often not considered worthy of attention. Many candidates write about how ways of knowing are "used" as if they were ingredients that ought to be "baked" together in order to generate various forms of knowledge. This is simplistic at best, and highly misleading. A deep understanding of the role of ways of knowing leads to the insight that just because a particular way of knowing is used to justify a claim does not guarantee that it is knowledge. It is how ways of knowing are used that supports knowledge claims.

Secondly, the effort to make ways of knowing fit with what is understood about various areas of knowledge produces some spurious connections and rather artificial constructs — we learn, for example, from many essays that history is somehow an outgrowth of memory, thus neatly sidestepping the actual role of the historian. Ways of knowing tend to be forced into the analysis in places where they do not and cannot enlighten. Sometimes they are mentioned seemingly just for the sake of making sure they are "name-checked" in the essay even though they provide no insight at all:

"Through sense perception, I observed the motion of the planet..."

"With the help of reason, I reached my conclusion..."

"Using language, I read the historical account..."

The most recent subject guide gave pride of place to a set of knowledge frameworks that were designed to provide appropriate tools for TOK analysis (see TOK subject guide, page 28 onwards). While ways of knowing are frequently mentioned within these frameworks (particularly in connection with methodologies), the promotion of the frameworks was a response to some of the problems described above that stem from the limitations in the competence of ways of knowing to achieve successful TOK analysis on their own. Teachers are strongly encouraged to consider shaping their treatment of various parts of the course through the use of the framework tools. While the subject guide states that the knowledge framework is not compulsory, neither are the ways of knowing required to form the foundation for addressing many of the prescribed titles.

Key Points

- The subject guide makes it clear that ways of knowing almost always operate together, and this should be reflected in the approach taken to them in essays.
- The great majority of current prescribed titles invite candidates to select and indicate the
 areas of knowledge to be explored in the essay, but, as a rule, no similar imperative
 applies to ways of knowing in these titles.
- Offering an explicit selection of ways of knowing at the start of the essay tends to undermine the claim above that they work together.

Areas of knowledge, knowledge production and learning

As (a) TOK is a course about knowledge and knowing, and (b) knowledge is a human construct, it is important to be clear about the relation between the two in TOK work. Discussion of how knowledge is produced by expert practitioners in subject disciplines is a central aim of the TOK course, but there must also be room for the exploring the ways in which other groups and individuals, such as the TOK candidate, come to know.

Phrases such as "the production of knowledge" (e.g. May 2017, prescribed title 4) or "knowledge produced" (e.g. May 2017, prescribed title 1) give a cue that there should be a strong emphasis on the former:

"In the **production of knowledge**, traditions of areas of knowledge offer correctives for ways of knowing." To what extent do you agree with this statement?

"It is only **knowledge produced** with difficulty that we truly value." To what extent do you agree with this statement?

Whereas "the acquisition of knowledge" (e.g. November 2016 prescribed title 1) allows for more latitude:

The **acquisition of knowledge** is more a matter of recognition than of judgment." Evaluate this claim with reference to two areas of knowledge.

"Acquisition" here could refer either to the production or the consumption of knowledge. One reason why the distinction between shared knowledge and personal knowledge was introduced was to draw attention to the need for balance in this respect.

Key Points

- Candidates are advised to look carefully at the wording of prescribed titles in order to ascertain what kind of engagement with knowledge is being elicited
- Candidates should consider "home advantage" in the selection of areas of knowledge –
 there is a danger of thinking that one understands more than one actually does in areas
 that are unfamiliar to candidates beyond the TOK course.

Aspects of essay content

A perennial complaint from examiners concerns the use of definitions. Typical comments are as follows:

"Dictionary definitions for key terms are rarely helpful; they are not nuanced or rich enough, nor do they suggest that the candidate has spent at least 100 hours discussing knowledge, theory, truth, etc. Since these definitions usually appear at the very beginning of the essay, greater care should be taken to create a better first impression than one can achieve with a definition from dictionary.com."

"Definitions offered are fairly weak or inappropriate to the task at hand; it is unlikely that any kind of categorical argument could be constructed that relies on them. An argument which calls for specific categorization of a practice, concept, state of mind, an object or outcome cannot be achieved without first clearly identifying the category to which these various things under consideration might belong. The definitions should offer a map, guidance or an accessible framework for the rest of the paper.

Candidates' employment of examples has been mentioned above, but there is perhaps more that ought to be said given their key role in the construction of convincing responses to prescribed titles. A wide variety of examples was on offer in essays, but a preponderance of a particular group of them drew some concerns among examiners. Some examples appear with great regularity but, with some additional thought, could have been substituted by others that would function at least equally effectively, and perhaps have offered additional insights. Many

examples have much potential when they have been mastered by candidates and applied in situations where they support or illustrate the exact claims being made about knowledge.

Some examples stem directly from candidate experience in other Diploma Programme (DP) components, and as such are to be welcomed as evidence for a primary aim of TOK in action. However, there may be other such points of contact across the DP that could also be exploited. Candidates often included their own experiences with extended essays and internally assessed tasks, and this is to be encouraged as long as they are described in enough detail to illustrate the claims at large. It is no use the candidate simply mentioning that, for example, there were difficulties with data collection in an extended essay; we need to understand the context of the particular experience that is being revisited. At the same time, candidates are advised to consider whether the number of words used to convey an example is a good investment in terms of bringing the analysis forward.

Examiners are aware that the ideal of the TOK essay as the culmination of the student's personal adventure to date in knowledge is perhaps unrealistic for many candidates on grounds of the limits of personal experience or motivation, but it must be pointed out that the constraints imposed by these factors can be exacerbated by the temptation to rely on external sources designed specifically to "help" with the task. As there is a finite quantity of such material available, shared patterns of essay structure and content across schools often become evident to examiners. If a candidate's first move is to search the internet for material that responds directly to a prescribed title, there is no way back from the "contamination" of thought that has occurred, and the short-circuiting of the process of internalization often leads to correspondingly poor work. Teachers are strongly urged to lead their candidates to formulate a personal and independent response to a title before allowing the wider world into the task that lies before them.

Key Points

- Candidates are strongly advised to resist the temptation to search for responses to
 prescribed titles on "help" sites or elsewhere as, once accessed, they contaminate the
 candidate's thinking and cannot be "unthought".
- Dictionary definitions often do not provide helpful guidance for the direction that should be taken in constructing an essay.
- Some examples are inherently ineffective because they are simplistic and cannot support the quality of analysis that is required in TOK.
- Some examples are ineffective because they are described at length and without sufficient regard for their contribution to argument.
- Some examples are employed ineffectively because they do not support the point being made or because they are described without due care for accuracy.
- Some examples have their origins in other DP courses, and these should be generally encouraged.
- Fresh examples are more likely to be effective, but even relatively common ones can work
 well if they are used with respect for their nature.

