

## THEORY OF KNOWLEDGE

### Overall grade boundaries

<b>Grade:</b>	E	D	C	B	A
<b>Mark range:</b>	0 – 18	19 – 28	29 – 37	38 – 47	48 - 60

### Statistical Summary

	November 2008	November 2009	% change	May 2009	May 2010	% change
<b>English</b>	<b>2998</b>	<b>3194</b>	<b>6.5%</b>	<b>40739</b>	<b>43958</b>	<b>7.9%</b>
<b>French</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>462</b>	<b>528</b>	<b>14.5%</b>
<b>Spanish</b>	<b>1165</b>	<b>1229</b>	<b>5.4%</b>	<b>2444</b>	<b>2915</b>	<b>19.3%</b>
<b>German</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>12</b>	<b>-7.6%</b>
<b>Chinese</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>97</b>	<b>179</b>	<b>84.5%</b>
<b>Total Candidates</b>	<b>4163</b>	<b>4423</b>	<b>6.2%</b>	<b>43755</b>	<b>47592</b>	<b>8.8%</b>

With such a large candidature, the assessment process is inevitably complex and time-consuming. Thanks are, as always, extended to 300 examiners who assessed the essays, and whose individual reports form the basis for this subject report.

**In order to secure success for their students, schools are strongly recommended to ensure that this report and previous ones are read in detail by all TOK teachers, and the Diploma Programme Coordinator. The May 08 Subject Report, as the first Subject Report for the new assessment criteria, contained much criterion-specific advice and is particularly useful. Teachers are also directed towards the IB Publication ‘Understanding Knowledge Issues’. All the documents are available on the Online Curriculum Centre.**

## The Essay

### Component grade boundaries

<b>Grade:</b>	E	D	C	B	A
<b>Mark range:</b>	0 - 10	11 – 16	17 – 22	23 – 29	30 - 40

What follows in this report is naturally focused on weaknesses and areas for improvement, but it is also important to recognise and celebrate the highly accomplished essays. Knowledge Issues in these papers were explored thoroughly and sensitively, and were grounded in specific and real examples. The intellectual stance of these successful papers tended not to the radical or fanciful, but the *appropriately* sceptical and analytical. One examiner noted that ‘while often exploring language, emotion and sense perception, reason as a way of knowing tended to drive the thinking in these papers. It is, after all, reason that argues on behalf of emotion, sense perception and language’. These papers were sensitive to the logical trap that many fell prey to - that it is objectively true that there is no such thing as objective truth. Rather than this extreme view, a balanced critical analysis, emphasizing what can be known with an eye to possible limitations, remains the mark of an excellent TOK essay, and the best essays were as outstanding as those in previous sessions. One examiner writes “As usual, I come away from this session with fresh insights, confirmed in the belief that TOK is still the single most important feature of the curriculum!”

Examiners have noted that there are problems associated with the individual various areas of knowledge. Regarding History, one writes that students ‘clearly speak from the hip, revealing a serious lack of knowledge of what an historian does, what historical writing claims to do, and how it all gets done.’ It may be that students who have little experience of History as a separate academic subject feel it is easily accessible from a TOK perspective; more guidance from teachers would be welcome here, and students would be well advised to attempt to dig deeper than the obvious (incorrect) clichés (‘History is written by the winners’, ‘an historian will always try to make his/her country appear blameless in writing a biased account of History’ etc). Real, specific and detailed examples were invariably lacking when essays took superficial approaches such as these.

With the sciences, some students had a tendency to make argument via difficult and sometimes quite technical areas (e.g. chaos theory, string theory, quantum mechanics, general relativity). They should be advised that this is only wise when they have a genuine understanding of what these areas mean and how to interpret them. In most cases, less technically advanced examples from their own experiences can be better used to make the same points.

Mathematics, too, continues to be a problem area. Many students continue to cite that mathematical statements are, as a rule, justified empirically – so  $1 + 1 = 2$  is proven by re-arranging apples. Students should

see from their own mathematical experiences that most things they know (matrices, functions, groups, sets) cannot be justified in this way, and even for the simple  $1 + 1 = 2$  case, the 'proof' involving apples is about apples, not numbers.

The arts and ethics continue to attract superficial analyses from weaker students. The arts were too often dismissed as being purely subjective due to value residing in the emotion of the artist or the spectator. For both areas, the fact that there is dispute and differences of opinion was taken as firm evidence that neither area contains any truth. This analysis was rarely applied to, for example, sciences where disputes and differences of opinion are also present.

While some examiners commented, again, on an over-reliance on texts (such as lengthy sections paraphrased from the various texts available), there were other views offered for the first time. One examiner writes that "students rely on them to provide definitions, establish context and link areas of knowledge and ways of knowing... stronger students use them as a foundation to launch into more creative and original thinking, while weaker students use them as a roadmap for pedestrian but often adequate treatments." This would suggest that it is perhaps the way that texts are used, rather than the texts themselves that is the issue, and teachers would be well advised to bear this in mind.

The use of examples has been discussed in detail in previous subject reports, but it is worth noting that this year several examiners note the increasing tendencies for weak essays to consist of (often good) examples loosely knitted together without any general argument to support or develop analysis. One of the purposes of examples is to illustrate conceptual distinctions and analysis, not to replace it, and so students should always be advised to weave the examples into their essays rather than to allow them to stand alone.

## Feedback on Specific Titles

As in previous years, some titles attracted much more attention than others, though quantity did not always correspond to quality.

Three examples of Knowledge Issues are given for each of the ten prescribed titles. These examples are clearly not meant to be exhaustive or definitive; because each title can be addressed in many different ways, their inclusion here is purely illustrative. The Knowledge Issues indicated are in some cases rather general, and might well be refined in the course of an essay.

### 1 To what extent is truth different in mathematics, the arts and ethics?

Three examples of Knowledge Issues that *could* be addressed in this title:

- Does the word 'truth' have different meanings in different contexts?

- What is the role of reason (or emotion) in trying to reach ‘truth’?
- Are mathematical statements true because we *define* them to be so, or because we discover them to be so?

The most successful essays used the three areas to explore the concept of truth in general, using the three areas as a platform for analysis. Weaker essays simply discussed the three areas in isolation without attempting a comparison as demanded by the title, and sometimes without a strong focus on truth. Many students claimed certainty was apparently easy to achieve in Maths because  $1 + 1$  is always 2, and did not address alternative views. Similarly, many claimed that we cannot reach truth in either art or ethics, without serious, or often any, consideration of alternatives. The very commonly given argument was badly flawed; that *because* there are differences of opinion, *therefore*, there can be no truth in art or ethics. The conclusion is, of course, defensible, but the argument is not, and one examiner writes ‘candidates seem ill equipped to go beyond banal descriptions of relativism’.

**2 Examine the ways empirical evidence should be used to make progress in different areas of knowledge.**

Three examples of Knowledge Issues that *could* be addressed in this title:

- How can empirical evidence distinguish between a scientific claim and a pseudo-scientific claim?
- How should we react when we have evidence which does not fit with a theory (in science, maths, History, ethics or everyday life)?
- What constitutes ‘progress’ in different areas of knowledge?

Very few students wrote on this title. One that did wrote an excellent analysis arguing that the implicit assumption within the title – that there is such a thing as purely empirical evidence – was flawed and that other ways of knowing must be combined with empirical data to change that data into evidence, and that *which* other way of knowing was used would determine the nature of possible progress. Another student focused on ‘should’ as a motivation to explore the ways that humans as individuals may fall short of methodological strictures, but that the communal nature of some disciplines (sciences, mathematics notably) provide mechanisms for error-correction.

**3 Discuss the strengths and limitations of quantitative and qualitative data in supporting knowledge claims in the human sciences and at least one other area of knowledge.**

Three examples of Knowledge Issues that *could* be addressed in this title:

- Are there general laws that describe human behaviour?
- Are there areas of human experience which cannot be quantified? If so, why?

- When is quantitative data superior to qualitative data in describing a phenomenon?

Stronger candidates used their own experiences to ground their discussions, noting, for example, that some quantitative data (e.g. time for a reaction to occur) is based on qualitative judgment (e.g. when a solution turns colourless). Stronger essays also moved away from a black and white opposition of the two types of data by arguing that we can quantify all data – and then considered what might be lost and gained in doing so. However, a number of candidates were tempted to produce descriptive essays comparing quantitative and qualitative methods and lost a TOK focus.

#### **4 How can the different ways of knowing help us to distinguish between something that is true and something that is believed to be true?**

Three examples of Knowledge Issues that *could* be addressed in this title:

- What are the best grounds for saying that we ‘know’ something rather than ‘believe’ it?
- Are there limits to what we can learn about the world through perception? How can we address the problems of perception using reason?
- How can language be used to persuade and manipulate people in their beliefs?

Weaker students began by describing three theories of truth (correspondence, coherence, pragmatic) and spent so much time on them that it was difficult to properly engage the title. Stronger essays consistently grounded this abstract title in real example – often by starting with examples where the distinction is (a) very clear (b) very obscure – this often led into areas of knowledge. So, for example, we can use sense perception and reason in science in ways that are not possible in the arts, where emotion may have a greater role to play.

#### **5 “What separates science from all other human activities is its belief in the provisional nature of all conclusions” (Michael Shermer, [www.edge.org](http://www.edge.org)). Critically evaluate this way of distinguishing the sciences from other areas of knowledge.**

Three examples of Knowledge Issues that *could* be addressed in this title:

- Is it true that all scientific beliefs are held provisionally?
- Is the provisional nature of scientific belief unique to science?
- Is there a difference between the way ‘scientists’ and ‘the scientific community’ are or are not able to hold beliefs provisionally?

Many candidates took Shermer’s claim at face value, ignoring both the provisional nature of conclusions in other areas such as History, and also the establishment of laws and paradigms within science which one might argue are non-provisional, at least in some limited sense. These candidates tended to write descriptive essays consisting largely of historical examples of scientific beliefs being overturned. The

strongest students seemed able in this title, more than most, to take it in a new and fresh direction – for example, arguing that Shermer’s is a methodological claim, and seems to ignore the *content* of science. As such, it may be partly correct but cannot be the sole demarcation criterion. Other strong students did not accept the unity of the sciences and insisted on treating natural and human sciences differently, and even within these natural sciences, on distinguishing between Physics and Biology, and within the human sciences, on distinguishing between Economics and Sociology. These essays had a clear sense of personal voice and engagement.

**6 All knowledge claims should be open to rational criticism. On what grounds and to what extent would you agree with this assertion?**

Three examples of Knowledge Issues that *could* be addressed in this title:

- What does it mean to ‘rationally criticise’ a knowledge claim?
- If a knowledge claim has been successfully criticised on rational grounds, does that mean the claim must be false?
- Do we have beliefs that we, as individuals or groups, should expose to rational criticism but do not?

The responses to this essay were frequently ones where further guidance from teachers would have helped. Many did not respond to both the ‘on what grounds’ and the ‘to what extent’ parts of the title, and some did not clarify the key phrase ‘rational criticism’ and seemed to slip into the everyday – ‘disapproval’ – meaning of ‘criticism’. Some stronger essays argued that a rational claim is one that is well supported; an irrational one is completely unsupported. So a ‘rational criticism’ is a criticism that is supported with good reason; an irrational criticism is one that is not supported. Put like this, perhaps it is a case of degrees of support, so that rationality is a matter of degree which might vary according to the area of knowledge. Another successful approach was to argue that rational criticism must be something intrinsic to the process of reason itself (i.e. content-independent) so a rational criticism might refer to contradiction, inconsistencies, assumptions, fallacies, and the limits of reason itself.

**7 “We see and understand things not as they are but as we are.” Discuss this claim in relation to at least two ways of knowing.**

Three examples of Knowledge Issues that *could* be addressed in this title:

- How can our expectations affect how we perceive the world?
- Might the language(s) we speak affect how we understand ideas?
- In what ways can we overcome problems of knowing to arrive at an understanding of things as they really are?

This was by far the most popular title, but it was not, in general, done well. Many candidates tended to agree uncritically with the statement, focusing almost entirely on the ‘how we are’ to the exclusion of ‘things... as they are’ and thus produced one-sided essays with few, if any, counter claims. Many often implicitly discounted the existence of the objective world altogether and one examiner writes that ‘there was rarely a distinction made between casual observations (opinions driven by momentary anger, optical illusions, childhood errors in perception, personal tastes in food, clothing, and music), everyday experience and formal academic study. In fact, everyday experience and formal academic study were frequently omitted from the discussion. No qualifiers were admitted.’ Thus, most students failed to consider the natural sciences, which might have afforded the possibility to consider the claim that they seek to understand the world exactly as it is, irrespective of our own human nature.

Many students also saw this essay as an invitation for anecdotes (as personal examples). There were essays which did not go beyond noting, for instance, that deaf people hear differently to people of normal hearing, or that a ‘person who has been bitten by a dog’ sees dogs differently from ‘somebody who hasn’t’ (this seems to have taken over from ‘burning one’s hand on the stove’ as the most common poor example this year).

Stronger responses offered a nuanced approach, with several arguing that the two alternatives given are not in fact mutually exclusive, and that who ‘we are’ might not mar our perception of the world but might actually heighten it; that there may be instances in which the thing itself and our human nature both contribute to our understanding.

**8 “People need to believe that order can be glimpsed in the chaos of events” (adapted from John Gray, *Heresies*, 2004). In what ways and to what extent would you say this claim is relevant in at least two areas of knowledge?**

Three examples of Knowledge Issues that *could* be addressed in this title:

- Why can new historical or scientific or ethical theories explain the same events in completely different ways to old theories?
- When we seek or observe patterns in events, what possible problems arise?
- How does perception work to actively interpret events in History?

Few students wrote on this title, and the responses tended to both extremes of achievement. Weaker essays tended to assume that the world was ‘chaotic’ in a non-knowledge way - so the persistence of global inequity or war was taken as evidence of this chaos, and global peace was taken as an ‘ordered’ world. These essays sometimes barely dealt with TOK issues at all. Another common pitfall was to describe chaos theory at length, without considering any implications for knowledge.

Stronger essays explored the meaning of chaos/order in fruitful contexts – jazz, modern art, quantum physics, fluid dynamics, economics, historical explanations – and went on to consider to what extent we impose ‘order’ on a ‘chaos’, and to what extent things are already ‘ordered’, independent of human experience. These explorations often led to a consideration of the nature of ‘laws’ in Science and History.

One examiner noted that ‘candidates writing on this title who were able to explain well how “the chaos of events” was “glimpsed” in their daily routines, projected more convincing voices than candidates who tried to explain “chaos” in theories of economics or in archaeological discoveries. In principle, those candidates who relied on personal examples from either their IB school experiences or family lives were more successful in writing authentic and engaging essays.’

## **9 Discuss the claim that some areas of knowledge are discovered and others are invented.**

Three examples of Knowledge Issues that *could* be addressed in this title:

- Are true mathematical claims discovered or invented?
- Do the arts allow us to discover truths that are difficult to express in straightforward language?
- Are there ethical claims that are true regardless of what anyone thinks of them?

Several essays saw discovery and invention as phenomena that can apply within one area and discussed their interaction quite well. Some weaker essays wrote on only one and thus eliminating the possibility of comparison and contrasts. Others rarely ventured beyond the basic - ‘art is invented, maths is discovered’ without looking at other possibilities – not least *within* areas of knowledge.

Stronger students noted that there is one sense in which all areas of knowledge are invented and so went on to distinguish between the area and the object of study. So, for example, scientific formulae may have been invented, but these are about natural phenomena which are discovered. Comparisons between the more and less objective disciplines in this respect were sometimes successful.

Another approach was to take the title as an invitation to explore the classification of knowledge. One student argued that that ‘Physics’ might be seen as more ‘discovered’ than ‘David Beckham Studies’, which is ‘invented’, and went on to note that even Physics is fracturing (into bio-medical physics, astrophysics) which leads us to question the distinction between the two; is it really a continuum?

## **10 What similarities and differences are there between historical and scientific explanations?**

Three examples of Knowledge Issues that *could* be addressed in this title:

- How do we come to know scientific and historical ‘explanations’?
- Can everything be ‘explained’?

- How does the 'scientific method' allow scientists to develop explanations? Is there an equivalent 'historical method'?

This title may have looked attractive as an essay structure appears straightforward to generate. However, many candidates overlooked the 'explanation' part of the title and simply wrote on science and History. In the weaker cases, as is often the case with comparative titles, some candidates found it hard to move beyond describing each area in general terms, and simply described each area in isolation without developing links.

Stronger essays did consider what we mean by 'explanation' – some did so very effectively by first considering the everyday use of the term first, as a benchmark against which to compare specific scientific and historical explanations. One memorable essay distinguished between the *methods* of each area and the *subject matter*, arguing that while the former provided for similar explanations, the latter mitigated against it. Others noted that there may be different types of explanation within a specific area; historical explanations, for example, may vary according to their scope or timescale. Some students also noted that explanation can be tightly linked with the future and making predictions; this proved fertile ground for original and insightful analysis.

## Other Issues

### Administrative and Clerical Procedures

Several concerns were consistently noted by examiners and verifiers, most of which are recurring issues. Schools are therefore requested to observe the following requests:

- Ensure that candidates use an easily-read font and font size, leave reasonable margins and a line spacing of at least 1.5
- Use the *current* TK/CS cover sheet
- Include a completed attendance sheet
- Use no binding; simply staple essays (with the staple not so low as to obscure the text)
- Write the *exact* prescribed title at the start of the essay
- Do not include PPD or PMF forms, but only the TK/CS forms with the essays

### Recommendations for IBCA procedures, instructions and forms

The number of suggestions made this session was lower than in recent years – few examiners complained about not being able to find appropriate information and forms in IBIS this year. Those suggestions for improvements that were made, however, were gratefully received and these comments have been noted.

## The Presentation

### Component grade boundaries

<b>Grade:</b>	E	D	C	B	A
<b>Mark range:</b>	0 – 8	9 – 12	13 – 15	16 – 18	19 - 20

**Much of the following account re-emphasizes what is written in the previous two subject reports. This is because the weaknesses apparent in the presentations viewed by verifiers this year were once again very similar to those evident in previous sessions. In many cases, these weaknesses seemed to stem from misdirection from teachers rather than a lack of effort from the students. It is, therefore, essential that teachers read the comments below and ensure that they and their students avoid these persistent misunderstandings about the nature of the TOK presentation.**

### Changes to forms starting from May 2010 session

There were several important changes to the presentation forms TK/PPD and TK/PMF to be used from the M10 session, but many sampled schools did not seem to be aware of them. It is essential that the newer versions of these forms are used for all presentations from now on – they are to be found in the Handbook of Procedures (2010).

Form TK/PPD requires candidates to identify the following aspects of their presentation:

- The title of the presentation
- The real-life situation to which the presentation refers
- The knowledge issue that has been identified as arising from the real-life situation, expressed as a question
- A plan of the presentation as intended

Form TK/PMF requires the following:

- The title of the presentation
- The duration of the presentation in minutes
- The self-assessment of the individual candidate
- Authentication of the presentation by the candidate – name and signature required
- The assessment by the teacher
- Authentication of the presentation by the teacher – name and signature required

## Intentions of the TOK Presentation

Teachers are reminded of the dual role of presentations in TOK. While the presentation is a formal *summative* assessment requirement for TOK, it is also intended as a *formative* opportunity for students to contribute a meaningful lesson to the TOK course in which they are participating. This second reason provides a further impetus to the need for effective planning – so that other students will benefit from the presentation.

## Planning of the TOK Presentation

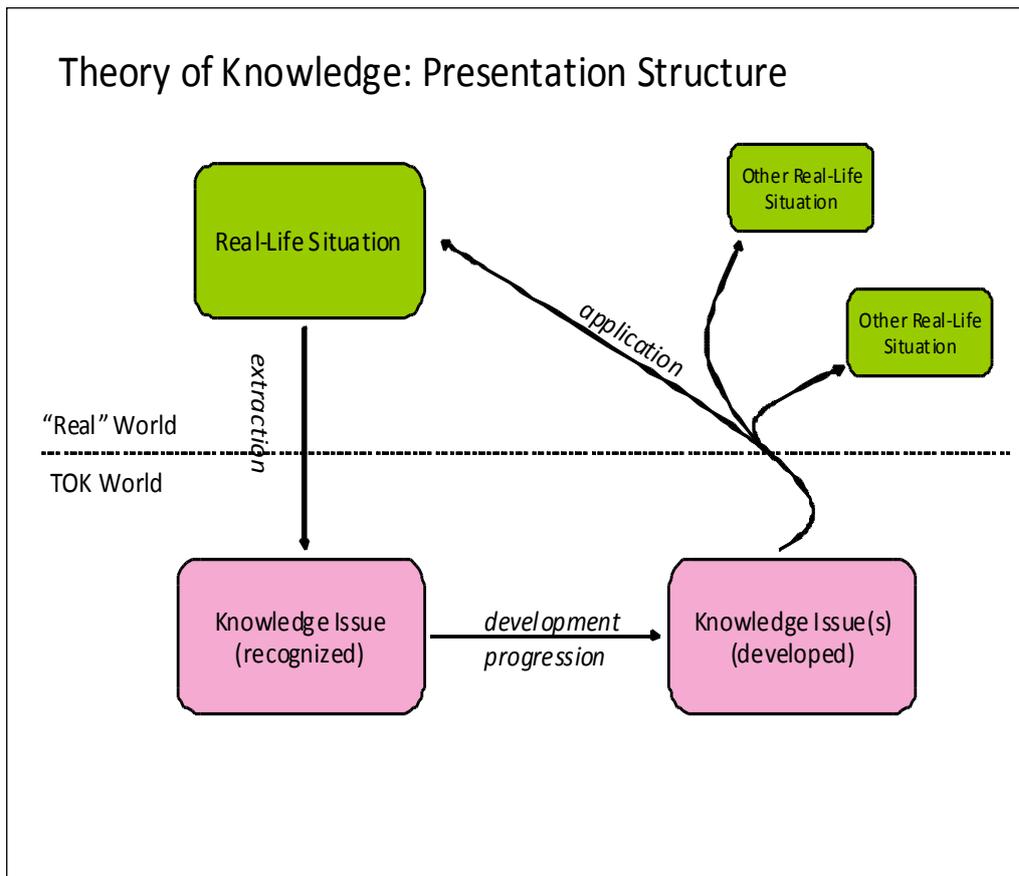
It seems to the verification team that, in some schools, an understanding of the goals of the TOK presentation has still not been achieved. This may be due to either insufficient or inappropriate guidance from teachers. One verifier speculated that “the reason could be that the nature of the assignment is much more demanding than many teachers and students realize”. It is crucial that teachers use the opportunity provided by the requirement for students to fill out the TK/PPD form to guide the planning process in a direction that is consistent with these intentions. It is very strongly recommended that teachers discuss presentation topics and the extraction of Knowledge Issues with students in a structured way by using a draft TK/PPD form. In accordance with the Subject Guide, a final TK/PPD form is to be submitted at the start of the presentation – possibly modified from the original form as a result of the preliminary discussion.

## Nature of the TOK Presentation

Although verifiers this year reported a general improvement, with some excellent work viewed, misunderstanding about the nature of the presentation task persists in some schools. The result is that verifiers have found it unavoidable in these cases to deduct marks from the assessments made by teachers of their own students. This misunderstanding was well-captured by one verifier, who commented: “the vast majority of presentations I viewed were simple recitations of two sides of a controversial issue, with no attention to how the contrasting beliefs had been formed as the result of a process of learning. Many of these would have been competent – even excellent – presentations in another course (politics, history, sociology), but they were not appropriate for TOK, and in some cases were almost entirely irrelevant. Even more distressing was the fact that in most cases, the teachers had given these presentations high marks on all four criteria.” Verifiers are deeply concerned about viewing so many presentations in which students clearly invest much time and effort, but do so to little effect as the outcomes are almost entirely descriptive and lacking in analysis. This is a problem of *relevance*; specifically, presentations are not focussed on *Knowledge Issues*. Schools are, therefore, very strongly directed to the recent IB publication *Understanding Knowledge Issues* which is available on the OCC. If students can structure their presentations around Knowledge Issues as defined in this document, this *relevance* problem should be avoided.

We cannot stress strongly enough; **the TOK presentation is NOT a descriptive research project; NOT a social studies “report” on some subject of general interest.** Without a focus on Knowledge Issues presentations cannot deserve major credit on the assessment criteria (criteria A and B are almost certain to score zero for research projects, and a very low mark for D is very likely). They *can* be very good *presentations*, but are very poor *TOK presentations*.

The core intention of the TOK presentation essentially takes the form of an analytical dialogue between two levels of discourse. This is illustrated by the following diagram:



The two levels represent the students' experiences in the TOK course (lower level) and in the world beyond it (upper level), and the connection between the levels demonstrates the relevance of TOK to life beyond the TOK classroom.

At the “real world” level, we have the real-life situation from which a knowledge issue (note that “knowledge issue” here is singular, corresponding to criterion A) must be **extracted**. This knowledge issue, residing in the “TOK world”, must be **developed** using ideas and concepts from the TOK course, and in this **progression** it is

likely that other related knowledge issues will be identified (note that “knowledge issues” here is plural, corresponding to criterion B) and will play a part in taking the argument forward. The product of this reflection can then be **applied** back to the real-life situation at the “real world” level. In addition, the presentation should be able to show how the process of application extends beyond the original situation to others, thus demonstrating why the presentation is important and relevant in a wider sense.

In order to assist students and teachers in understanding this structure, the TK/PPD form now requires the written documentation of both the real-life situation **and** the knowledge issue that is extracted from it. The TK/PPD form also requests a title for the presentation – this is intended as a useful summary label that can perhaps be used in a published schedule of presentations for internal school use, but could also be displayed on the DVDs and thus would also assist verifiers in identifying each piece of work.

In addition, it is strongly recommended that the construction by the students of a diagram like the one above, adapted to the individual nature of the planned presentation, be made a part of the planning process. A structured diagram of this sort would ideally be drawn on the reverse side of the TK/PPD form, and would encourage an analytic exploration of Knowledge Issues which would likely result in the award of high marks.

There follow a few examples of topics for presentations viewed this year – intended to illustrate some common generic pitfalls and how they might be avoided.

**Problem: the presentation is not grounded in real people and real life**

*Example topic: If everyone in the world could kill one person, what would happen?*

This is, happily, an entirely hypothetical question. It might be possible to develop knowledge issues in line with various ethical theories through an analysis of possible scenarios arising from the initial question. But crucially there is no real-life situation to ground the presentation, and no single clearly-expressed knowledge issue that would focus the treatment. The presentation is likely to appear quite detached from real life – it might constitute an intriguing thought experiment, but its application to how we go about our daily lives is likely to be tenuous at best. Such a presentation would tend to meander in the lower level of the presentation structure diagram.

**Problem: the presentation is focused on a description of a real event or situation to the exclusion of analysis**

*Example topic: Post-traumatic stress disorder in Rwanda after the 1994 genocide*

This might be a fascinating and important topic, but it is not immediately clear how it is related to TOK. In order to make the crucial connection, the presentation could focus on the process of diagnosis and the challenges psychiatrists face in gaining reliable knowledge about patients. But this may be not at all what the candidate

really wants to talk about! If the candidate merely wants to describe the events of 1994 and their aftermath, especially if s/he has personal experiences related to them, this could be a captivating *presentation*, but it will be a very poor *TOK presentation* because it resides exclusively at the upper level of the presentation structure diagram.

**Problem: the presentation uses TOK concepts and vocabulary entirely superficially, or simply as “markers” for TOK**

*Example topic: The logic behind the school’s security policy*

Such a topic would presumably have to examine the quality of reasoning provided in support or in criticism of the policy, and this analysis would have to be focused by a single knowledge issue. But if the candidate’s main intention is just to recite the arguments for and against the status quo, then the nature of logic and its applications have not been addressed. This would be an example of a presentation that resides entirely at the upper level of the presentation structure diagram. One verifier wrote: “in many cases it seemed that the students did not have a grasp of their real-life situation and spent much time thrashing about in unclear and waffling exploration, with students seemingly pulling ways of knowing out of a hat and attempting to insert them into their presentations. It was as if they knew that they had to mention TOK terms but really had no idea of how to do so, having minimal grasp of their concepts”.

**Problem: the presentation concerns itself with an ethical topic introduced as a two-sided debate in which the presenter in the end abstains from judgment**

*Example topic: Is the death penalty ethical?*

Topics of this kind may prompt candidates to lay out arguments for and against and then declare that in the end we are all entitled to our own individual opinions. Once again, the quality of support for various positions needs to be evaluated in order to promote a sense of progress in the presentation. There needs to be a focus on a particular event or situation – a sentence carried out or a law passed or repealed, or an impassioned speech made – in order to satisfy fully the requirement for a real-life situation. If this is not the case, the presentation will fail on two counts – no reference to the upper level of the diagram (no real-life situation) and no proper treatment of knowledge issues (lower level of the diagram). In the words one verifier: “having settled on a controversial issue, it is then perilously easy to fall into the trap of simply reiterating the reasons that proponents of either side offer in support of their point of view. This in turn creates a false sense of security because students talk about ‘reasons’ and ‘ethics’ and assume that the use of those terms constitutes the investigation of a knowledge issue. Listing reasons, however, does not constitute an investigation into how one came to believe in those reasons, and stating that the controversy is a matter of ethics does not constitute an investigation into how the ethical stance was developed and internalized”.

The following real-life situations were used in presentations this year – these examples are included here because they lend themselves to effective knowledge issues as indicated (although the candidates did not always succeed in identifying or formulating them as effectively):

**Real life situation:** A controversial exhibition in an art gallery

**Knowledge Issue:** To what extent are the limits of art defined by morality?

**Real life situation:** Claim in a biology textbook that mesosomes are not real structures in bacteria

**Knowledge Issue:** How can we be sure that scientific evidence gained through the use of technology is genuine?

**Real life situation:** A move to make history a compulsory school subject up to age 16

**Knowledge Issue:** To what extent should academic disciplines be ranked according to their usefulness?

**Real life situation:** The use of a personality test to assess students in the class

**Knowledge Issue:** What are the strengths and limitations of quantification in the human sciences?

The TOK presentation is part of the TOK course in order to provide students with the freedom to choose a situation of interest to themselves and others and use it as an entry point to TOK activity. It is fervently hoped that this report (and the previous ones for N07/M08 and N08/M09) clarify the ways in which this freedom can be exploited in a positive and appropriate manner, yet constrained by the exigencies of TOK.

## Delivery of TOK Presentation

There are a number of further miscellaneous, yet important, aspects of the TOK presentation that deserve attention:

- The presentation must not be delivered from a script – while flashcards and other prompts are likely to be helpful, these must be subordinated to the primary nature of the TOK presentation as an exercise in speaking
- While interactions with the audience are permitted during the presentation, they must be well-planned and not act as a substitute for clear thinking on the part of the presenters. Discussion after the end of the presentation is not considered a part of the presentation and should not influence assessment judgements
- It is not expected that teachers will interrupt presentations to make lengthy interjections of their own – once again, there should be time for discussion afterwards
- The use of movie and YouTube clips must similarly be subordinated to the overall aims of the presentation and not be used as substitutes for thinking and analysis. It is expected that the

presentation be a live event to the extent that video material does not become the dominant mode of delivery

- The duration of the presentation should be recorded and entered onto the TK/PMF form – timings should be compatible with the recommendations given in the Subject Guide on page 47
- While the instructions in the Subject Guide allow for group presentations up to a group size of 5 candidates, the size of the group is likely to affect the structural logistics of the presentation itself. One verifier wrote: “it seemed to me that the ideal group size was two or three students – individual presentations were heavily constrained by time, and groups of four or five tended to produce scattered or repetitive work”.
- Just as good writing enhances the clarity and persuasiveness of an essay, good speaking skills, while not part of the formal assessment, can enhance a presentation. Material that cannot be heard clearly cannot attract credit and cannot contribute to understanding
- The principles of academic honesty must be observed and the need for acknowledgement recognized even in the oral context of the presentation

## APPENDIX: Mandatory requirements for schools selected for verification of presentations.

Selected schools are required to submit (by 15<sup>th</sup> September for November sessions, and 15<sup>th</sup> March for May sessions) materials for 5 candidates (or all candidates if the school is registering less than 5 in total). These materials comprise:

- recordings of the presentations in which these candidates were involved, and
- the TK/PPD and TK/PMF forms for those candidates

To clarify further:

- a TK/PMF must be included in the documentation for each candidate in the sample, and for sampled candidates ONLY
- a TK/PPD must be included in the documentation for each presentation that forms part of the sample (there is no need for more than one TK/PPD for candidates involved in the same presentation)

The selection of the 5 candidates is at the discretion of the school, but should as far as possible reflect the diversity of assessment scores awarded for presentations. For this reason, schools should try to avoid the inclusion in the sample of candidates from the same presentation unless a small overall number of candidates make this inevitable. It is recognized that scores cannot be known in advance of the presentations themselves, and so it may be necessary to record more presentations than will actually be sent to the verifier in order to be sure of capturing evidence for the range of scores required. Many teachers have found that the recording of all

presentations in any case has contributed to good practice for subsequent sessions, as these recordings can be helpful during the process of presentation preparation.

## Nature of recordings

**Please note: Schools are required to send recordings in DVD format only. Other formats such as VHS and camera cassette tapes are no longer acceptable.** DVDs should be sent clearly labelled (examination session, candidate numbers where known, titles of presentations in correct order) and packaged such as to avoid damage in transit (bubble-wrap, etc.).

**Particularly important is the quality of sound on the recording** and teachers are strongly advised to check this before commencing the actual recordings of the presentations. If visual projections form an important part of the presentation, it should be ensured that they are readable on the recording.

As the verification of presentation assessment is on the basis of individual candidates, even if they participated in group presentations, **it is vital that verifiers can identify the candidates being sampled.** Candidates should announce clearly and slowly their identity on the recording at the start, including names (and candidate numbers if known at the time the presentation is given). School may consider asking students to hold up cards with this information at the start of the recording in order to facilitate this. Teachers should also ensure that recordings start well in advance of the first words spoken.

## Other issues

### Administrative and Clerical Procedures

#### Description of verification procedure

In accordance with the Subject Guide, 5% of the schools entering candidates in these sessions (N09 and M10) were asked to record some or all of the TOK presentations given by the students for the purposes of confirming the scores awarded by teachers for this internally assessed component of the programme. Some of these schools were selected at random; others were selected on the basis of major inconsistencies in past sessions between performance in the essay and the presentation.

#### Procedure for notification of schools

Schools selected for any given examination session are notified by IBCA via the DP Coordinator at the start of the diploma cycle that culminates in that session. For example:

- schools selected for the May 2011 session will have been notified by August 2009
- schools selected for the November 2011 session will have been notified by February 2010

Schools that have been asked to provide presentations for verification must observe the requirements outlined in the Appendix to this report. Failure to do so may make it difficult for verifiers to award appropriate marks.