

## **MAKING LEARNING REAL THROUGH SCENARIO STUDY**

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### **Abstract**

In 2013, the Humanities Department in Nanyang Girls's High School introduced the use of scenario-based case study as a way to assess the students' understanding of issues taught in Integrated Humanities (IH). In line with the Curriculum 2015 outcomes, this scenario-based case study provides a platform for authentic and collaborative learning.

Students are involved in looking at policies or events from the past and/or present to glean lessons for future scenarios. It also allows them to apply their critical and creative thinking skills while deepening their learning through real-world tasks. Students identify challenges, consider and evaluate solutions related to IH case studies. They are expected to be flexible by exploring issues from different perspectives as they question beliefs, attitudes, values and assumptions.

Students are assessed on their ability to construct an explanation, justification, rationale or substantiation that is accurate and considers complexities. Where relevant, they consider other points of view and weigh their decisions.

**Keywords:** authentic learning, levels marking, multiple perspectives, scenario study

## 1. INTRODUCTION

### **a) 21<sup>st</sup> Century Competencies**

The Ministry of Education (Singapore) has mapped out the 21<sup>st</sup> Century Core Competencies and skills for schools. As the world has evolved and created a different set of expectations on the education landscape, our current Minister of Education has reaffirmed that the road to future success lies in developing and growing the young to their fullest potential. Therefore, it is necessary to nurture them to understand the complexities of issues around them.

“We live in a more globalised, more inter-connected, and information-intensive world, where changes in one part are transmitted rapidly to another. The need to anticipate change, welcome change and execute change is greater than ever. In the face of these changes, it is even more critical that we hold on to timeless values and our deep sense of purpose.” – Mr Heng Swee Keat, Minister of Education (2014).

### **b) Why did Nanyang adopt the Scenario Study?**

The Humanities Department in Nanyang Girls' High School (NYGH) conducted a syllabus review of the Integrated Humanities (IH) subject in 2012. A scan of the educational landscape showed that there was a need to develop deeper thinking on national and global issues of relevance to students. The review team felt that it was important for students to look at policies or events from the past or present to glean lessons for future scenarios which the previous assessment mode (Source-based case study) did not meet. This would enable them to take the best and what is worth preserving from the past into the future. As a result, the department introduced the Scenario Study.

This Scenario Study was chosen as a platform for authentic learning of possible combination of variables that would create a possible outcome, based on certain initial conditions or assumptions. This approach forces students to view issues from multiple perspectives. It also helps make learning relevant through real-world tasks which are designed to promote 21<sup>st</sup> Century Competencies. It involves students exploring beliefs, attitudes, and values and questioning their own assumptions. This enables the students to make moral and emotional connections with the world in which they live. The Scenario Study provides students with the opportunities to make recommendations or solutions. In this way, learning becomes a holistic experience with possible reflective opportunities before, during and after the scenario engagement.

As the Scenario Study approach is based on inquiry, this allows for independent and collaborative learning with the teacher playing the role of a facilitator in the classroom.

To enhance students' learning and skill competencies, it is necessary that students be given the opportunity to investigate scenarios.

The range of skills and competencies include:

- Affinity for interdisciplinary thinking
- Exploring multiple perspectives
- Openness to explore alternative solutions
- Clear and critical thinking, evaluation, and analysis
- Handling ambiguity
- Appreciating social diversity
- Empathising with other people's experiences
- Ability to participate in collaborative learning
- Justifying a personal opinion about issues
- Participating responsibly in the community and active global citizenship

In NYGH, the Scenario Study is a tool that the IH teachers have been using to:

- develop the critical and creative thinking skills
- look at policies or events from the past or present to glean lessons for future scenarios, taking what was best and worth preserving from the past into the future
- provide meaning and insight into how they can shape the world of their future

## 2. THE SCENARIO STUDY

### **a) What is Scenario Study?**

A Scenario Study is a possible sequence of events that could happen in the future, based on certain initial conditions or assumptions and what could follow from that. They are called "scenarios" because they are like "scenes" in the theater with a series of differing views or presentations of the same general topic. This forces the reader to think more, which is the whole point of a scenario, and to learn more about alternative futures, so one can make better choices today (University of Arizona, 2009).

Scenario studies can take many forms. While in some cases, the scenario is hypothetical, in others, the scenario can be real life ones.

#### *Events in a Fictional Country*

A scenario on Tikakulu, a fictional African country, provided students with an opportunity to explore requirements for good and effective government, by examining successful policies from other countries and critically evaluating their suitability in context.

*Possible Future Event*

An outbreak of a new strain of influenza which requires the cooperation and coordination of efforts of countries and various agents involved in containment and surveillance.

*Real life scenarios*

In other scenarios, actual events are presented with students being asked to examine possible future consequences of decisions or policies, such as the introduction of the Singapore Government's White Paper on Population. In this situation, students were asked to explore the impact of policy changes, such as increased population targets, on society, economy, foreign relations, and etcetera.

To guide the students in evaluating issues from multiple perspectives, we developed the IH Compass. The IH Compass comprises the different perspectives/categories which the students are encouraged to consider when trying to understand an issue. For example, time perspectives, social, economic, political and environmental implications, etc.

With the aid of the IH compass, students developed their critical thinking skills and engaged in analytic discussion. This allowed students to dwell deeper into issues as it involved them researching into possible authentic case examples. As students identified problems and proposed solutions to address possible challenges, they would be conducting a needs analysis to ensure that their evaluation of the scenario and recommendations made were sound.

The use of Information Technology (IT) also enhanced the students' research on these issues which helped them to gain insights on a broader and deeper scale about how others viewed the matter. In NYGH, students had their iPads when they were researching issues and case studies. This facilitated learning as they were able to gather information first hand and were able to make connections fast and easily.

**b) Assessment Objectives**

In the Scenario Study, students are expected to:

- examine unique connections among ideas and suggest insightful approaches to questions and issues;
- examine issues and developments with consideration of the context;
- analyse and evaluate different viewpoints and perspectives;
- make judgements, recommendations and decisions based on information; and
- justify recommendations/opinions and postulate outcomes and developments with substantiated explanations that are accurate and consider complexities.

**c) Levels Mark Scheme (LMS)**

We used levels marking to differentiate the quality of student's responses to scenario questions. LMS is a qualitative assessment tool targeted at rewarding rather than faulting students' responses. LMS encourages positive marking, giving credit for what the students know, understand and can do. This is because LMS sets out the criteria which students can achieve.

For the Scenario Study, we created a four-level mark scheme with clear descriptors on students' level of achievements to assess the students' learning.

**Levels Mark Scheme**

- L1**    Uncritical Response / Does not address Question
- L2**    Superficial Response
- L3**    Reasonable Response
- L4**    Thoughtful Response

**3. FEEDBACK FOR SCENARIO STUDY**

Based on the piloting done in 2013, students and teachers have given feedback on the use of Scenario Study as their assessment. The feedback given reinforces the 21<sup>st</sup> Century skills and competencies that we intend for our students to develop.

**a) Students' feedback**

*Pang Shi Ying*

"I really, really like scenario questions because unlike most of the subjects we are learning now, these sort of questions are the ones that are **truly useful** in the future. They require us to analyze situations that might probably happen/are already occurring and find solutions to potential problems. Instead of being taught the same thing and having to apply it over and over again, we have to adapt to every different scenario given because they all vary from each other. In a way, I feel that it **emulates our world** in which nothing is ever truly the same, and applying the same solution to two similar situations would get you nowhere. **We are trained to be thinkers, to be future leaders** that are able to make rational decisions while considering the feelings of their people, and I like that."

*Eunice Leong*

“Scenario Study is especially for those who have a mind ready for endless possibilities. It allows me to have a more **comprehensive and mature understanding** of the agents, issues and outcomes raised in a scenario. I have come to realize that the world is very complex and that there are **many possibilities** to a question. “

*Pang Shi Ting*

“The Scenario Study is definitely very different from other modes of assessment. We had to discuss and review the points from **different perspectives**. For example, for the Tikakulu assignment, we had to discuss policies from **long- and short-term points of view**. I have learnt that many opinions and decisions have limitations. Policies that are made to curb a problem in a society over a short- term may have a negative impact in the long run— everything had at least one complication. It has definitely made me more curious about current affairs.”

*Elaine Yeo*

“Through the scenarios, I have gained another perspective of the world, as I recognized that when you are placed in a scenario, there are **many aspects** you have to consider that could affect your final outcome/product. For example, what you think will cater best to one group of people may not work out as well for others. Also, some ideas could be socially acceptable but not economically viable. I realized that as teenagers, we are also capable of thinking up ingenious solutions, as we will have a unique perspective on things that is different from the government officials. This has made me aware that as **youths**, we can also be **agents of change and can contribute to our society in our own ways.**”

*Veronike Ban*

“Scenario questions encourage us to **project numerous possibilities** and highlight the **shades of grey** in every issue, so that we may learn to better handle future situations that are not easy to settle. They have also made me less ignorant about issues surrounding the governance of a country.”

*Guan Zhuo*

“After the Scenario Study, I feel that there has to be a more balanced consideration for all aspects of society. Society is extremely diverse, with many people facing different problems, with different needs and wants. It has made me **feel more connected with the society and the issues people face.**”

*Alicia Ong*

“Scenario exercises are especially **mentally stimulating** because we have to really think about the different groups of people involved and look at it from all their different points of view. In the end we often realize that one solution leads to another problem and **rarely will there be a**

**perfect way out, which is often the case in the real world context.** I would definitely recommend scenario exercises as they are an interesting **twist to the usual dry memorizing** one would usually expect from a humanities subject. Moreover, it would greatly help with the way students would think about one issue, encouraging them to think of **multiple perspectives** instead of being narrow- minded and considering only a single aspect.”

### **b) Teachers' Feedback**

*Mrs Chiong- Boon Peck Chi*

The Scenario Study allows the students to **appreciate the complexities of issues**, be it global or local. The various lenses suggested in the IH compass allow students to hone their **analytical thinking**. It is also an assessment type that supports greater classroom discussions. In this way, **assessment and pedagogy are interlinked**. Students have given feedback that it allows them more freedom to develop their ideas and thoughts.

Scenario Study will develop discernment among the students. They are better able to appreciate the **interconnectedness and complexities of issues** and understand that **real world problems** often do not have clear-cut solutions. It is indeed heartening to see students develop the **critical judgement** as they progress. As such, scenario study supports the intent of IH being a subject that inculcates **informed, concerned and participative citizens**. Although some students may find it challenging at the beginning, I am confident that they will appreciate the intent of scenario based response as they progress.

*Suzana AJ Ajmain*

With new directions in how the world has evolved; talking about **borderless society** and how our students are supposed to fit in this present century, it was and still is necessary for the syllabus to equip them with the skills necessary required and expected of them by current and future societies/employers.

So, there are elements of **independent and collaborative learning** thrown in because these are necessary skills for them to have. At the same time, the subject seeks to evoke emotional response from the students which is good because it calls on their **sense of empathy** for what's happening around the world.

*Rachel Khoo*

Scenario Study helps to develop our students as **thinkers** who are able to create their own knowledge and understanding of the world around them. It helps the students see that **real world** issues are never in silos and they are all **interconnected**. It also allows them to see that there is no one right solution or answer to anything, hence the students need to be comfortable with **ambiguities and shades of grey**. It also showed them that the answers or solutions they came up with could not be applied to another scenario. It moves away from the rote learning formulaic

approach we had in the past and allows the students to go beyond the boundaries to explore and learn.

Each scenario is unique and to build their understanding of the scenario, the students need to learn to **question their assumptions**, look at **multiple perspectives** and sometimes go off tangent in their research before coming back to piece things together again so as to get a more comprehensive understanding of the background issues. It is challenging but the students have more ownership over their own learning.

*Dina van Dijk*

When the Scenario Study was first introduced, many students were confused and struggled to craft an answer. Here was an assessment where they couldn't simply regurgitate or prepare a model answer. What worked for one scenario may not apply to another scenario. They found themselves having to assess a scenario for its own peculiarities, strengths and challenges.

Over time, the students developed a habit of thinking that involved looking at **multiple perspectives** that brought them away from mere sweeping assumptions and assessments. It was heartening as a teacher to see their maturity develop as they began to grasp with the **complexities** they faced. Rather than blindly judging or dismissing views that are different, they began to understand why people hold the views they have and **appreciate diversity** of opinions and cultures. They also learnt how to be **more thoughtful and accountable** for the claims, evaluation and recommendations they make.

With the Scenario Study, I found that I learnt just as much from my students as I listened to their discussions, points of view and findings.

**c) Learning points for Teachers**

- i. What became very clear to the teachers as we embarked on this Scenario Study was that we required a change in pedagogy in order to equip students with 21<sup>st</sup> Century skills. The Scenario Study approach is student-centred as they create their own knowledge and understanding.
- ii. We observed that students were comfortable with rote learning and being spoon-fed with information. As a result, students found generating questions to begin their research and the process of constructing knowledge, challenging.
- iii. We also found that students tended to over-generalise and over-simplify issues when they were identifying problems and solutions to the Scenario Study. Hence, teachers need to be vigilant and to continue to monitor and point them in the right direction. This also forced us to check our assumptions on what the students knew or could do.



- iv. We had to rethink how we use curriculum time so that students will be able to collaborate and build upon each other's knowledge. So, teachers felt the increasing need to meet students in smaller groups to guide their learning and research. Teachers need to engage with individual groups. We also realised that students must be given time to slowly acquire the habits that we want them to develop. As students take responsibility for their learning and be accountable for the learning of their peers, we also realised that students need to be comfortable in their role. They are not only to apply what they have learnt, but also to learn to construct knowledge in a systematic and responsible manner.
  
- v. We also realised that IT is a great tool for research and communication. It is also an important aspect of research as IT helps build a community of learners. With the entire level of students having access to their own iPad, it also greatly reduced the need for computer labs. With the aid of such technology, the students were able to conduct their research during lesson time and have access to information readily for their discussion.

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