

**Broadrick Secondary School**  
**4NA Preliminary Examinations 2019**  
**Suggested Answers**

**SECTION A (Source Based Case Study)**

<b>1</b> <b>(a)</b>	<b>Study Source A.</b> Do you think the cartoonist agrees that PMDs should be banned in Singapore? Explain your answer, using details from the source.	<b>[5]</b>
<b>L1</b>	<b>Answers based on description of source details/ No valid interpretation of source content</b>  E.g. The cartoonist agrees that PMDs are bad.  E.g. The cartoonist does not agree that PMDs are bad as they are an alternative mode of transportation.	<b>1</b>
<b>L2</b>	<b>Agrees/ Disagrees based on <u>sub-message</u> (linking to general advantages OR disadvantages of the use of PMDs)</b> <i>Award 2 marks for agree answer, supported</i> <i>Award 2 marks for disagree sub-message, unsupported</i> <i>Award 3 marks for disagree sub-message, supported</i>  E.g. The cartoonist <u>disagrees</u> that PMDs should be banned as it highlights <u>the ease of movement for PMD users as an alternative mode of commute</u> . This is evident from the source, which shows a commuter using the PMD to move from one place to another. [L2/2]  E.g. The cartoonist <u>agrees</u> that PMDs should be banned in Singapore as it highlights <u>the potential dangers/ harm of PMDs</u> . [2] This is evident from the source, which shows a PMD user ignoring the safety of pedestrians [3]	<b>2-3</b>
<b>L3</b>	<b>Agrees based on <u>valid</u> message (linking to danger of PMDs and irresponsible usage)</b> <i>Award 4 marks for valid message, unsupported</i> <i>Award 5 marks for valid message, supported</i>  E.g. The cartoonist <u>agrees</u> that PMDs should be banned in Singapore it <u>highlights the lack of benefits of PMDs and depicts how these devices bring more harm than benefit to road users, due to the irresponsible usage of PMD users</u> . [4] This is evident from the source which shows a PMD speeding down the roads in the opposite direction of traffic, which could have resulted in a collision with unaware pedestrians. [5] This shows <u>that the cartoonist feels that PMDs pose a greater/ bigger threat to the safety of other road users if PMD users are not careful and thus should be banned</u> .	<b>4-5</b>

<b>1(b)</b>	<b>Study Sources B and C.</b> Does Source B agree with Source C? Explain your answer.	<b>[6]</b>
<b>L1</b>	<b>Answers based on provenance/ topic</b>  E.g. Sources B and C agree with each other as they provide information about PMDs in Singapore.  E.g. Sources B and C disagree with each other as they are from different sources.  E.g. Sources B and C disagree with each other as Source B is extracted from an article while Source C is extracted from an online post.  <b>Difference: False Matching</b> <i>Award 2m for false matching</i>  E.g. Source B highlights the advantages brought about by PMDs, while Source C does not.	<b>1-2</b>
<b>L2</b>	<b>Agree <u>OR</u> Disagree based on valid matching of source content, supported</b> <i>Award 2 marks for agree / disagree, unsupported</i> <i>Award 3 marks for agree / disagree, supported</i>  E.g. Both sources agree in terms of the <u>use of PMDs bring about great benefits for commuters as it results in convenience and allows commuters an ease of travel from one point to another.</u> [2] This is evident from Source B, "For some users, PMDs save time and money" and from Source C, "I prefer to zip to nearby places instead of driving as it saves the hassle of looking for parking and I have never faced any problem on the footpath." [3]  <b>OR</b>  E.g. Both sources agree in terms of how <u>all road users should bear equal responsibility for the effective use of PMDs in Singapore for the safety of all road users.</u> This is evident from Source B, "Both pedestrians and PMD users agreed that co-existence would require both sides to be more gracious" and from Source C "for a car-lite society to thrive, pedestrians, cyclists and PMD users need to use more restraint." [3]  <b>OR</b>  Both sources are <u>disagree in terms of the support for PMD usage in Singapore.</u> Source B highlights that <u>Singaporeans are generally supportive of PMDs as an effective alternative mode of transport in Singapore as long as they are used with care.</u> This is evident from Source B, "She had said the growing popularity of PMDs was a positive development, as active mobility was a key pillar of Singapore's vision for transport here. <u>However, Source C highlights the concerns Singaporean road users have for PMDs due to the accidents caused by irresponsible PMD users.</u> This is evident from Source C, "PMD users could practise more caution and there would	<b>2-3</b>

	also be fewer accidents and people would not hate us and propose for PMDs to be banned.”	
<b>L3</b>	<b>Agree <u>AND</u> Disagree based on valid matching of source content</b> <i>Award 4 marks for agree and disagree, unsupported</i> <i>Award 5 marks for agree and disagree, supported</i>  Both elements of L2	<b>4-5</b>
<b>L4</b>	<b>Agree, based on purpose/ motive, supported.</b>  E.g. Sources B and C agree in terms of purpose.  Both sources want to convince Singaporeans that in order for PMDs to be an alternative mode of transportation in Singapore, both pedestrians and PMD users need to play an active role and take responsibility for the safety of other road users in their daily commute. This is done so that Singaporeans would appreciate the advantages that PMDs can bring about and support the usage of PMDs on the roads in Singapore instead of insisting for it to be banned.	<b>6</b>

<b>1(c)</b>	<b>Study Source D.</b> Does Source D prove that PMDs should be banned in Singapore? Explain your answer.	<b>[7]</b>
<b>L1</b>	<b>Useful/ Not useful– based on provenance</b>  E.g. Source D proves that PMDs should be banned because it is by a father whose daughter was injured by a PMD.  E.g. Source D does not prove that PMDs should be banned as it is by a concerned parent whose child was injured by a PMD, thus he might be biased.	<b>1</b>
<b>L2</b>	<b>Does not prove based on typicality</b>  E.g. Source D does not prove that PMDs should be banned in Singapore as it is the perspective of only one user. Thus, the perspective of the danger it may pose to society is not representative of the perspective of the whole community.	<b>2</b>
<b>L3</b>	<b>Proves <u>or/and</u> Does not Prove– based on messages</b> <i>Award 3 marks for proves or does not prove, unsupported</i> <i>Award 4 marks for proves or does not prove, supported</i> <i>Award 4 marks for proves and does not prove, unsupported</i>  E.g. Source D <u>proves</u> that PMDs should be banned in Singapore because the source talks about how <u>the danger that PMDs can pose to pedestrians and road users, due to the reckless usage of the devices.</u> [3] This is evident from the source, “She had lost one of her front adult teeth and another one is going to be dead soon	<b>3-4</b>

	<p>due to the torn gums” and “We were so safe before this, why is there a need to introduce another form of PMD that is a safety hazard?” [4]</p> <p>E.g. Source D <u>does not prove</u> that PMDs should be banned in Singapore as it only brings about harm when users of PMDs are reckless and do not care for the safety of other road users, otherwise, it can benefit Singaporeans as it allows people to move from one place to another efficiently. [3] This is evident from the source, “We were so safe before this, why is there a need to introduce another mode of transportation that is a safety hazard?” [4]</p> <p>E.g. Source D <u>does not prove</u> that PMDs should be banned in Singapore because the source is by a concerned parent, whose child has been injured by a PMD. As such, he would be emotional and less objective as he has personal negative experiences with the safety of PMDs in Singapore. Thus, he portrays a highly critical and negative image of PMDs, making the source opinionated and biased. [4]</p>	
<b>L4</b>	<p><b>Proves/ Does not prove, based on cross-referencing with other sources</b></p> <p><i>Award 5 marks for valid cross-referencing, unsupported</i></p> <p><i>Award 6 marks for well-developed cross-referencing, supported</i></p> <p>E.g. Source D <u>proves</u> that PMDs should be banned in Singapore because the source talks about how <u>the danger that PMDs can pose to pedestrians and road users, due to the reckless usage of the devices.</u> This is evident from the source, “She had lost one of her front adult teeth and another one is going to be dead soon due to the torn gums” and “We were so safe before this, why is there a need to introduce another form of PMD that is a safety hazard?” Furthermore, this is <u>supported by Source F</u>, which also shares the same viewpoint that the irresponsible usage of PMDs can lead to accidents, posing a threat to the users of pedestrian paths even. This is evident from the source, “Pedestrians no longer feel safe walking on footpaths nowadays.” Since Source D is supported by Source F, Source D proves that PMDs should be banned in Singapore.</p> <p>OR</p> <p>E.g. Source D <u>does not prove</u> that PMDs should be banned in Singapore because the source talks about how <u>the danger that PMDs can pose to pedestrians and road users, due to the reckless usage of the devices.</u> This is evident from the source, “She had lost one of her front adult teeth and another one is going to be dead soon due to the torn gums” and “We were so safe before this, why is there a need to introduce another form of PMD that is a safety hazard?” However, this is <u>refuted by Source G</u>, which emphasises that PMDs indeed bring benefits to commuters as it can help save time and move around efficiently, while at the same time reduce the number of cars on the road. This is evident from Source G, “Active mobility plays an important role in our vision to making Singapore a car-lite society. .” Since Source D is refuted by Source G, Source D does not prove that PMDs should be banned in Singapore.</p> <p><i>Award L2/2 marks if students do not develop inferences proving the reasons for the ban of PMDs in Singapore.</i></p>	<b>5-6</b>

L5	<p><b>Does not prove based on explained provenance</b></p> <p>E.g. Source D <u>does not prove</u> that PMDs should be banned in Singapore because the source is by a concerned parent, whose child has been injured by a PMD. As such, he would be emotional and less objective as he has personal negative experiences with the safety of PMDs in Singapore. Thus, he portrays a highly critical and negative image of PMDs, making the source opinionated and biased. Source D thus does not prove that PMDs should be banned as the author has a clear motive. The author wants to raise awareness to Singaporeans that the PMDs are just another form of road nuisance and can pose more harm than good to society, resulting in more road accidents. This is done so that authorities can take more action against PMD users who misuse their devices and impose a tighter ban on PMDs in Singapore.</p>	7
----	---	---

<b>1(d)</b>	<b>Study Source E.</b> Are you surprised by Source E? Explain your answer.	<b>[7]</b>
<b>L1</b>	<p><b>Surprised OR Not Surprised, using provenance details/ No explanation in content</b></p> <p>E.g. I am surprised by Source E as it is a comment by the administrator of an e-scooter interest group.</p> <p>E.g. I am not surprised by Source E as it is a comment by the administrator of an e-scooter interest group who is likely to speak up for PMDs in Singapore.</p>	<b>1</b>
<b>L2</b>	<p><b>Surprised OR Not Surprised, using content</b>  <i>Award 2 marks for answers, unsupported</i>  <i>Award 3 marks for answers, supported</i></p> <p>E.g. I <u>am surprised</u> by Source E as the administrator of the e-scooter interest group <u>does admit that some users of PMDs pose a threat to commuters and pedestrians with their reckless and inconsiderate riding.</u> This is evident, “The black sheep (riders), who are using bigger and faster e-scooters which do not meet the authorities' specifications, are creating a problem.”</p> <p>OR</p> <p>E.g. I am <u>not surprised</u> by Source E as the administrator of the e-scooter interest group <u>speaks up for the majority of PMD users that the use of PMDs is just to facilitate easy movement and convenience from one location to another and not to pose as a threat to other road users.</u> This is evident from Source D says, “However, most of the users have compliant e-scooters, adhering to the maximum weight of 20kg, which they use to travel just a few kilometres from home to the MRT station before boarding the train!”</p> <p><b><i>Accept other valid answers</i></b></p>	<b>2-3</b>
<b>L3</b>	<b>Surprised AND Not Surprised, using content</b>	<b>4</b>
<b>L4</b>	<p><b>Surprised <u>OR</u> Not Surprised, based on cross-referencing</b>  <i>Award 5 marks for valid cross-referencing, unsupported</i>  <i>Award 6 marks for valid cross-referencing, supported</i></p> <p>E.g. I am <u>not surprised</u> by Source E as the administrator of the e-scooter interest group <u>speaks up for the majority of PMD users that the use of PMDs is just to facilitate easy movement and convenience from one location to another and not to pose as a threat to other road users.</u> This is evident from Source D says, “However, most of the users have compliant e-scooters, adhering to the maximum weight of 20kg, which they use to travel just a few kilometres from home to the MRT station before boarding the train!” This is <u>supported</u> by Source B, which also pointed out that <u>the use of PMDs help commuters save time and improve the accessibility from point to point.</u> This is evident from Source F, “It was also mentioned that PMDs provide a vital link for the first mile-last mile journeys to bus stops and train stations.”</p>	<b>5-6</b>

	<p>OR</p> <p>E.g. I am <u>surprised</u> by Source E as the administrator of the e-scooter interest group speaks up for the majority of PMD users that the use of PMDs is <u>just to facilitate easy movement and convenience from one location to another and not to pose as a threat to other road users</u>. This is evident, “So this means that minimum wage is needed in Singapore!” However, this is challenged by Source D which highlights that <u>PMDs have been misused when users are reckless and inconsiderate, resulting in more harm than good as accidents arise, posing as a threat to the safety of other road users</u>. This is evident, “It is more for showing off. You want to ride fast, be a professional rider, not race in our neighbourhood parks or on our streets and compromise our safety!”</p>	
<b>L5</b>	<p><b>Not Surprised, based on the background of the source</b></p> <p><i>Award 6 marks for explained provenance + attempted purpose</i></p> <p><i>Award 7 marks for well-developed explained provenance + purpose</i></p> <p>E.g. Having read Source E, I am <u>not surprised</u> by the response given by the administrator of e-scooter interest group Singapore Inokim Riders. Coming from the viewpoint of a PMD user, the author would feel a need to speak up for PMD and portray the use of these devices in a positive light, which was what he did.</p> <p>The author wants to convince Singaporeans that PMDs can greatly benefit the lives of users by improving convenience when used appropriately, though he does not discount the importance of safety and obeying of rules set in place. This is done so that other PMD users will put in more effort to use their devices with caution and be more gracious on the roads, so that Singaporeans would not pressurise the government to ban the use of PMDs.</p>	<b>7</b>

<b>1(e)</b>	<p><b>Study all sources.</b></p> <p>How far do the sources in the case study show that Personal Mobility Devices (PMDs) should be banned in Singapore? Explain your answer.</p>	<b>[10]</b>
<b>L1</b>	<p><b>Writes about statement, no valid source use</b></p> <p><b>Award 1 mark for each detail, up to 2 marks</b></p> <p>Eg. Personal Mobility Devices can bring about both harm and good to Singapore. [1]</p>	<b>1-2</b>
<b>L2</b>	<p><b>Yes/ No, supported by valid source use</b></p> <p>Eg. These sources show that the Personal Mobility Devices (PMDs) should be banned in Singapore. <u>Source A highlights that PMDs can pose a threat to the safety of pedestrians, especially the elderly on footpaths, especially when PMD users are reckless and irresponsible, which may result in accidents.</u>[3] This is evident from the source, which shows a PMD user speeding down the footpath recklessly, which would have resulted in an accident with pedestrians who are unaware of oncoming</p>	<b>3-6</b>

	<p>traffic. Thus, this shows that PMDs can bring more harm than good and should be banned. <u>Also, Source D also shares the same perspective, as it highlights that irresponsible usage of PMDs have led to accidents which can be easily prevented and thus PMDs should be banned.</u>[4] This is evident from the source, “I agree that PMDs should be banned. Why do they even go that fast? We were so safe before this, why is there a need to introduce another mode of transportation that is a safety hazard?” Furthermore, this is supported by <u>Source F, which highlights that PMDs pose more of a hazard to pedestrians on the pavement as it has brought about more inconvenience and fear to pedestrians who have to be on a constant look out for reckless PMD usage instead.</u>[5] This is evident from Source F, “We have to give way to these e-bikes, e-scooters to avoid being hit, especially on “old and narrow” pedestrian walkways.”[6] Therefore, these sources show that PMDs should be banned as they bring about more harm than good if they are not used appropriately.</p> <p><b>OR</b></p> <p>Eg. These sources show that PMDs should not be banned in Singapore. <u>Source B highlights that PMDs provide an alternative mode of transportation for commuters and help them ease travelling from one point to another within a shorter duration.</u>[3] This is evident from the source, “She had said the growing popularity of PMDs was a positive development, as active mobility was a key pillar of Singapore's vision for transport here. It was also mentioned that PMDs provide a vital link for the first mile-last mile journeys to bus stops and train stations.” Source C also <u>highlights that the PMDs should not be banned as they bring about convenience for commuters and helps them save time, as long as PMD users are able to use their devices appropriately and are more gracious in their commute, so that accidents can be avoided.</u>[4] This is evident from the source, “I prefer to zip to nearby places instead of driving as it saves the hassle of looking for parking and I have never faced any problem on the footpath.” This is also supported by Source E, which <u>highlights that majority of PMD users are responsible for the use of their devices and merely use their devices for ease of transportation from one point to another.</u> [5] This is evident from the source, “However, most of the users have compliant e-scooters, adhering to the maximum weight of 20kg, which they use to travel just a few kilometres from home to the MRT station before boarding the train!” Source G also supports the <u>use of PMDs as an alternative mode of transportation for commuters.</u> [6] This is evident from the source, “banning the use of active mobility devices on footpaths is not the solution as active mobility plays an important role in our vision to making Singapore a car-lite society.” Thus, these sources show that PMDs should not be banned as they provide an alternative means of transportation for commuters.</p>	
<b>L3</b>	<p><b>Yes + No, supported by valid source use</b></p> <p>Eg. These sources show that the Personal Mobility Devices (PMDs) should be banned in Singapore. <u>Source A highlights that PMDs can pose a threat to the safety of pedestrians, especially the elderly on footpaths, especially when PMD users are reckless and irresponsible, which may result in accidents.</u> This is evident from the source, which shows a PMD user speeding down the footpath recklessly, which would have resulted in an accident with pedestrians who are unaware of oncoming traffic. Thus, this shows that PMDs can bring more harm than good and should be banned. <u>Also, Source D also shares the same perspective, as it highlights that irresponsible usage of PMDs have led to accidents which can be easily prevented</u></p>	<b>7-10</b>

and thus PMDs should be banned. This is evident from the source, "I agree that PMDs should be banned. Why do they even go that fast? We were so safe before this, why is there a need to introduce another mode of transportation that is a safety hazard?" Furthermore, this is supported by Source F, which highlights that PMDs pose more of a hazard to pedestrians on the pavement as it has brought about more inconvenience and fear to pedestrians who have to be on a constant look out for reckless PMD usage instead. This is evident from Source F, "We have to give way to these e-bikes, e-scooters to avoid being hit, especially on "old and narrow" pedestrian walkways." Therefore, these sources show that PMDs should be banned as they bring about more harm than good if they are not used appropriately

**AND**

Eg. These sources show that PMDs should not be banned in Singapore. Source B highlights that PMDs provide an alternative mode of transportation for commuters and help them ease travelling from one point to another within a shorter duration. This is evident from the source, "She had said the growing popularity of PMDs was a positive development, as active mobility was a key pillar of Singapore's vision for transport here. It was also mentioned that PMDs provide a vital link for the first mile-last mile journeys to bus stops and train stations." Source C also highlights that the PMDs should not be banned as they bring about convenience for commuters and helps them save time, as long as PMD users are able to use their devices appropriately and are more gracious in their commute, so that accidents can be avoided. This is evident from the source, "I prefer to zip to nearby places instead of driving as it saves the hassle of looking for parking and I have never faced any problem on the footpath." This is also supported by Source E, which highlights that majority of PMD users are responsible for the use of their devices and merely use their devices for ease of transportation from one point to another. This is evident from the source, "However, most of the users have compliant e-scooters, adhering to the maximum weight of 20kg, which they use to travel just a few kilometres from home to the MRT station before boarding the train!" Source G also supports the use of PMDs as an alternative mode of transportation for commuters. This is evident from the source, "banning the use of active mobility devices on footpaths is not the solution as active mobility plays an important role in our vision to making Singapore a car-lite society." Thus, these sources show that PMDs should not be banned as they provide an alternative means of transportation for commuters.

**Note: Consideration on number of sources used and the quality of analysis in deciding on marks in L2 & L3.**

## SECTION B (Structured-Response Question)

- (a) Extract 1 highlights that many migrant workers in Singapore do not receive enough appreciation from Singaporeans for their contributions to our country.

[7]

In your opinion, what is one way in which Singaporeans can show appreciation to migrant workers? Explain your answer using one recommendation.

Level	Descriptor	Marks
L1	<p><b>Describes the topic</b>  <i>Award 1 mark for a description</i>  <i>Award up to 2 marks for more details</i></p> <p>E.g. Many migrant workers help build our country. Hence, it is important that we show our appreciation to them.</p>	[1-2]
L2	<p><b>Identifies/ Describes strategy</b>  <i>Award 3 marks for identifying one strategy</i>  <i>Award 4-5 marks for describing the strategy</i></p> <p>E.g. One way Singaporeans can show appreciation to migrant workers is by initiating activities for them to participate in. [3] For example, leisure activities, such as trips to the cinema, sports sessions like Cricket or Volleyball or even potluck sessions can be organised for migrant workers [4] as many of these migrant workers do not have the luxury of enjoying leisure activities while working in Singapore. [5]</p> <p><u>Other possible solutions:</u></p> <ul style="list-style-type: none"> <li>- <i>Giving up seats to them on public transportation: some migrant workers rather stand on the trains as they feel that they will get judged for sitting down. Some even have to carry bulky baggage with them,</i></li> <li>- <i>Organise donation drives to make goodie bags for them as a token of appreciation</i></li> </ul>	[3-5]
L3	<p><b>L2 + Explains strategy</b>  <i>Award 6 marks for attempted explanation of the strategy</i>  <i>Award 7 marks for clear explanation of the strategy</i></p> <p>E.g. One way Singaporeans can show appreciation to migrant workers is by initiating activities for them to participate in. For example, leisure activities, such as trips to the cinema, sports sessions like Cricket or Volleyball or even potluck sessions can be organised for migrant workers as many of these migrant workers do not have the luxury of enjoying leisure activities while working in Singapore. <u>Through the initiation of such leisure activities, locals and migrant workers can interact and make friends with each other. This can help Singaporeans have a deeper understanding of migrant workers, while at the same time allow migrant workers to relax and have fun outside of work.</u> [6]</p>	[6-7]

	Thus, these leisure activities can help migrant workers de-stress and feel included in a foreign society. Thus, they will feel appreciated in Singapore. [7]	
--	--	--

- (b) Extracts 2 and 3 identify the impact of diversity on a country due to exchange and appreciation of culture and exchange of skills and knowledge.

Explain how exchange and appreciation of culture and exchange of skills and knowledge impact Singapore positively.

[8]

Level	Descriptor	Marks
L1	Writes about the topic but without addressing the question.  e.g. Diversity positively impacts Singapore in many ways.	[1-2]
L2	Identifies/ Describes how the given factor impacts Singapore positively <i>Award 3-4 marks for describing one impact</i> <i>Award 4-5 marks for describing both impact</i>  e.g. <b>Exchange and appreciation of culture impact Singapore positively.</b> A country will appreciate foreign culture when foreign culture is able to add value a local culture. [3] For example, in the food industry in Singapore, one such chef who specialises in fusion food is Chef Willin Low who created fusion between Singaporean and modern European dining with dishes like char siew pork burger, laksa pesto linguini. [4] Such openness to the idea of trying out different varieties of food shows that we are open to learning the cultures of other groups and sharing our culture with others.  <b>OR/ AND</b>  e.g. <b>Exchange of skills and knowledge impact Singapore positively.</b> For example, the collaboration between Singapore's Agency for Science, Technology and Research (A*STAR) and Switzerland's Cytos Biotechnology AG led to the discovery of the H1N1 flu vaccine. [5] This enhances Singapore's position as a regional biomedical hub, in turn attracting more researchers to Singapore and making more breakthroughs in scientific discoveries.	[3-5]
L3	L2 + Explains how the given factor impacts Singapore positively <i>Award 6-7 marks for explaining one impact</i> <i>Award 7-8 marks for explaining both impacts</i>  e.g. <b>Exchange and appreciation of culture impact Singapore positively.</b> A country will appreciate foreign culture when foreign culture is able to add value a local culture. For example, in the food industry in Singapore, one such chef who specialises in fusion food is Chef Willin Low who created fusion between	[6-8]

Singaporean and modern European dining with dishes like char siew pork burger, laksa pesto linguini. Such openness to the idea of trying out different varieties of food shows that we are open to learning the cultures of other groups and sharing our culture with others. As such, people living in Singapore will be provided with many opportunities to interact and learn from people from different countries and cultures. This will result in deeper understanding and appreciation of the diverse cultures, and friendships among people of diverse groups.

**OR/ AND**

e.g. ***Exchange of skills and knowledge impact Singapore positively.*** For example, the collaboration between Singapore's Agency for Science, Technology and Research (A\*STAR) and Switzerland's Cytos Biotechnology AG led to the discovery of the H1N1 flu vaccine. This enhances Singapore's position as a regional biomedical hub, in turn attracting more researchers to Singapore and making more breakthroughs in scientific discoveries. Due to Singapore's openness to learn and collaborate with overseas scientists, this has led to robust research and significant discoveries made in Singapore. As such the exchange of skills and knowledge makes Singapore a country highly advanced in research and development, enhancing Singapore's reputation in the world.