

19+ - A Survey of Nineteen Year-olds in Singapore

**Centre for Applied Research
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Summary of Key Findings

This study has three main design objectives. These are to provide a snapshot of the mindset of a cohort that represents Singapore's future, facilitate measurable comparisons against related empirical evidence (e.g. cohort participation rate, salary aspirations, crude birth rate), and enable the state of the mindset to be tracked over time. Ultimately, this study's research strategy is to monitor the long-term development of trends of youth mindset formation. This long term structural investigative theme is therefore what sets the SUSS youth survey apart from other competing surveys.

The focus on a narrowly specified group which enables us to get a snapshot of the challenges this group faces is an important aspect of the present survey which distinguishes it from other competing ones. The key results are aspirations for higher education, getting married and starting a family within the next 10 years and nascent views about legislative, social and political issues. These are three very important aspects of the youth mindset, and yet based on what we know, a significant proportion could actually fall short in one, and there are some who could be frustrated in all three. The underlying theme therefore is what that says about the so-called mindset formation of this group as they increasingly grow into positions of responsibility and determine the future course of our nation.

There are also findings about media consumption habits and cyber influences. We summarise the key findings, and indicate the key results upon which they are based.

1. Educational aspirations

An important implication that arises from this study is that based on current policy projections of the cohort participation rate, close to half of nineteen year-olds appear destined to be unable to fulfil their aspiration of getting a degree. The consequences of having such a significant proportion of young people potentially falling short of a key target like this when seen in the context of their having grown up in a society where so much revolves around education cannot be over-stated.

2. Marriage and starting a family

A starkly similar picture is presented when we interpret the results on marriage and starting a family. Close to 9 in 10 would like to get married and only a slightly lower proportion would like to have children. For many, the ideal age to achieve both is by the time they turn 30. Given how momentous these two events are, it is clear that the window within which most people hope achieve them is very narrow.

3. Awareness of legislative, social and political issues

When asked to write down a major issue of concern, a significant proportion of respondents volunteered gay rights in general and Section 377A concerns in particular. In follow-up questioning during focus group discussion, several participants expressed empathy with acquaintances who are members of this group.

4. Concerns for the future

Their main worries relate to bread-and-butter issues, such as getting a good job, long-term career prospects, relationships and finances. This is a far cry from the picture of reckless youth often portrayed by some types of media.

5. The PSLE is not the problem, the attitude of parents about it is

More than half a decade later after their own confrontation with that apparent bane of youth, Singapore's nineteen year-olds views about PSLE are clear and consistent, that it should be retained, and the stress it causes is not a bad thing. Any negative fallout is not due to the PSLE itself but to pressure of meeting parents' expectations.

6. On examinations in general

The concerns of nineteen year-olds about examinations is a product of their direct experience with the education system, and is a recurrent theme in this study. They do not really mind taking exams. Instead, the problem apparently lies with the adults – to be specific, the pressures exerted on them by the anxiety of their parents. The findings imply that nineteen year-olds are concerned with the way examination results affect or limit their education pathway due to streaming, and are not really concerned about the exams per se.

7. Points of agreement and disagreement by gender

Male and female nineteen year-olds may disagree on a lot of things but not on marriage. There is a strong desire that cuts across all SES, race and gender, to marry and have kids, and the age that nineteen year-olds believe is ideal for achieving these life aims is within the next ten years of their lives. And it does not take much to figure out the implication: this does not leave much time for planning things of such magnitude. There are clear gender distinctions across the board in areas as diverse as opinions on controversial social issues, patterns of mobile phone use, cyber wellness, salary expectations.

8. Racial preferences about leadership differ by race are important

Key minority groups are concerned about race in the choice of the nation's leader. There are also significant differences across race groups of preferred leadership style.

9. Experiences of nineteen year-olds from lowest-income group different from their peers

Inequality affects the vulnerable, and nineteen year-olds from the lowest SES group exhibit the effects of their background. However, there are also signs – encouraging ones – that some forms of government intervention have successfully made a difference.

These findings do not tell us how nineteen year-olds will turn out in the face of the challenges they face in life. It does tell us that for many, the challenges they are set to face in achieving the targets they have set themselves would not be trivial. The picture that emerges is of nineteen year-olds whose focus in life is not that much different from previous generations. They all want to have a good education,

get a job that pays well, marry, start a family, build a successful career, and achieve these in what they view as a fair and just society. The key difference is that they are doing in a different age with new challenges.

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1. Introduction

Based on statistics about the size of each birth cohort,¹ less than 1% of the population is made up of nineteen year-olds, regardless of citizenship status. That makes our target group –Singapore citizens born in calendar year 1999 – an even smaller minority. Despite being such a small group, nineteen year-olds are not hard to spot, and wield an enormous influence over those around them.

When identifying a specific group or segment of the population, we want to pinpoint characteristics which make them stand out. We also want to know if the group is homogeneous or an agglomeration of highly diverse sub-groups. With nineteen year-olds, however, this is easier said than done.

Like the generations before them, Singapore's nineteen year-olds resist generalisation, and defy stereotypes. Yet it is the way they each seek to distinguish themselves from their peers which offer an insight into their thinking, their view of the world and ultimately, their aspirations.

This study examines the characteristics of nineteen year old Singaporeans through the lens of their differences as well as through those aspects which distinguish them from other groups, including their experiences. Some differences are discernible across gender, education pathways, as well as socioeconomic status (SES). Others are based on formed habits, such as extent of mobile phone use, or reading preferences. Still others are based on their relationship with and adaptation to technological developments.

Socioeconomic factors play a key role in determining educational achievements, and hence in shaping views. In this study, type of dwelling is used as a proxy for SES.

The impact of streaming has thrown the spotlight on the importance of education pathways. In this study, we examined three broad pathways, and find the respondents from different ones have significantly different outlook (on matters like ideal job, marriage and starting a family) and opinions (on issues relating to law, politics and society).

The focus of our study is quantitative. The project's ultimate objective is to provide measures for tracking elements of interest about a specific age cohort of the Singapore population. The design is built around the fact that the primary selected age-group occurs before critical thresholds such as voting eligibility and National Service. Unless otherwise stated, the discussion in this report refers to respondents' views about

¹ <https://www.singstat.gov.sg/find-data/search-by-theme/population/population-and-population-structure/latest-data>

Singapore. The statistics presented in the rest of this report are based on the weighted responses.

The rest of this report is organised as follows. Section 2 describes the basic motivation and discusses the immediate as well as long-term objectives of the project. Section 3 discusses the analysis of responses about issues in education and employment. Section 4 covers responses about issues relating to media consumption, including the use of devices such as mobile phones and laptops. Section 5 covers views issues relating to matters about close personal relationships, including marriage and having children. Section 6 deals with responses to questions about local and global issues of concerns, including those relating to political awareness. Concluding remarks are given in section 7, while details of the survey coverage and questionnaire design can be found in Appendices A and B respectively.

2. Motivation

This study is motivated by a desire to gain a better understanding of the experiences of youths experience at a critical point in their lives. There are many reasons why age 19 can be regarded as a critical point. It is the age beyond which it is clearly not valid to refer to a person as a teenager. It is threshold of adulthood. In Singapore, male citizens begin serving full-time national service, with few exceptions.

An understanding of nineteen year-olds is a first step towards understanding how their experiences shape their later outlook. In one important area, namely political awareness, there is already evidence that the difference between those who have voted and those below voting age can be attributed to the way the experience of voting influences their views and hence, shapes their preferences.²

Motivated in this way, the study is designed with three main objectives. These are to provide a snapshot of the mindset of a cohort that represents Singapore's future, facilitate measurable comparisons against related empirical evidence (e.g. cohort participation rate, salary aspirations, crude birth rate), and enable the state of the mindset to be tracked over time. Ultimately, this study's research strategy is to monitor the long-term development of trends of youth mindset formation. This long term structural investigative theme is therefore what sets the SUSS youth survey apart from other competing surveys.

In this report, we adopt the term mindset to refer to the thoughts, beliefs and opinions of the target group of nineteen year-olds. It would be simplistic to believe that a full understanding of what shapes the thoughts, beliefs and opinions of such a diverse group can be achieved by merely looking at gender, race or SES.

The real differences are likely to be based on much more subtle distinctions which go beyond these. Some other approaches to investigating what distinguishes opinions and thinking will therefore be introduced at various points of the ensuing discussion.

² Mullainathan, Sendhil, and Ebonya Washington (2006). "Sticking with Your Vote: Cognitive Dissonance and Voting". NBER Working Paper Series, Jan 2006, Working Paper No. 11910.

From this perspective, even though the sample is not precisely representative of some aspects of the demographic profile, what we were aiming for is a sample that is representative of the mind-set of nineteen year-olds.

One important factor is streaming. In order to capture the effect of streaming, we derived an indicator of education pathways (Table 2.5). This is necessarily based on the educational attainment to-date of the respondent. However, the fact is that that few nineteen year-olds in Singapore enter the workforce at that age and are usually contemplating further studies. In addition, the objective in this case is not to use qualifications achieved to-date as a measure of future employment outcomes, but rather to capture the differing experiences that may have shaped their mind-set.

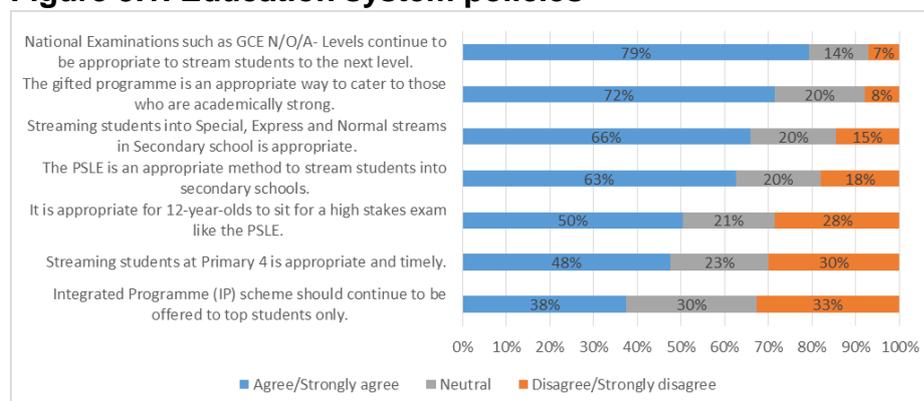
In the sense of focusing on nineteen year-olds in relation to how they may be faring while still embarked upon their education journey, the mindset we are looking to establish is situated broadly within the same context as – though, by no means, equivalent to – studies such as Beloit’s mindset list.³

3. Education and Employment

The relationship between choices about higher education and employment has been well-documented. For instance, evidence that the pursuit of higher education becomes a more attractive substitute when labour market prospects decline have been observed.⁴ In this study, we find evidence that respondents plan their education strategies with job market prospects in mind. The link is interesting because it shows that even in the absence of youth unemployment, nineteen year-olds in Singapore remain mindful of the fact that education serves an important labour market purpose.

To begin with, we look at views about the education system. Figure 3.1 shows the extent to which respondents agree with statements about the education system.

Figure 3.1. Education system policies



³ <http://themindsetlist.com>

⁴ Barr, Andrew, and Sarah Turner (2014). "Out of Work and Into School: Labor Market Policies and College Enrollment During the Great Recession". IDEAS Working Paper Series from RePEc, 2014.

The statements point to key aspects of the education system which have seen increasing active public debate.

In particular, various aspects of the system of streaming are highlighted. This has seen major debate following the announcement of a change in policy during the recent debate on the government's Budget for 2019 in Parliament. The statement which relates directly to the policy issue in question of streaming into Special, Normal, and Express streams in secondary schools received 66% support and only 15% against.

All except two of the statements received majority support. Even then, the two which failed to reach the 50% threshold of support had larger proportions in favour than against. The two are about streaming at P4⁵ and restricting access to the integrated programme (IP).⁶

The statement which just managed to receive a bare majority in support was about administering the PSLE at age 12. In that case, the percentage of respondents in agreement exceeded that of respondents against by a 22-point margin.

The statement which received the highest level of support – 79% for and only 7% against – was about GCE 'N', 'O', and 'A' level examinations. As this relates to the outcome of the streaming policy being highlighted in current public debate, it is worth pointing out the fact that overall, respondents appear to be making a distinction between the outcome of streaming – namely the GCE 'N', 'O' and 'A' level examinations - and the policy of streaming that precedes that outcome. Respondents seem to make a distinction between the streaming function of examinations and other functions that major exams may have; one gets the impression that while the respondents do believe in the value of major examinations, they do not want to be streamed based on the results.

The responses about PSLE also show a strong level of support.

Considering that these are two of the most hotly debated issues about the education system over a long period of time, it raises the possibility that the opinions of those who have gone through both the PSLE and streaming develop a more sanguine view of the relevance of these policies.

As we would expect, there are differences in support depending on the respondent's personal experience of the impact of education policies. The differences by education pathways occur mainly with policies relating to secondary school streaming, i.e. the IP scheme, streaming into Normal and other streams, and the major GCE examinations

⁵ P4 refers to Primary 4 in primary school education in Singapore. It has been significant juncture because of the streaming which grouped students in subsequent years to courses of differing levels of difficulty based on the results from performance at the P4 examinations. In a recent policy change announced by the Ministry of Education (MOE) in 2019, P4 streaming is undergoing further refinement. See [https://www.moe.gov.sg/education/primary/subject-based-banding-\(primary\)](https://www.moe.gov.sg/education/primary/subject-based-banding-(primary)).

⁶ Students in the IP scheme skip the GCE 'O' levels examinations and undertake a six-year programme of study which proceeds from secondary school to junior college (JC) education within the same school in a seamless transition. After six years of study, they sit for either the GCE 'A' levels examinations or IB (international baccalaureate) examinations.

for various levels. On these, respondents from the Polytechnic⁷ and NITEC⁸ pathways are less supportive (Figures 3.2, 3.3, and 3.4).

Figure 3.2. View about the statement “Streaming students into Special, Express and Normal streams in Secondary school is appropriate.”

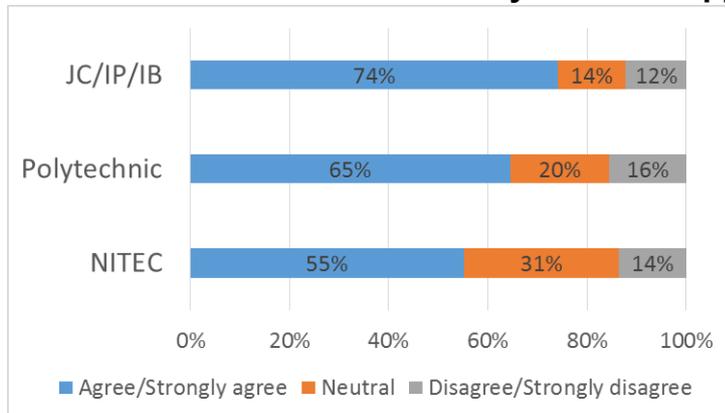
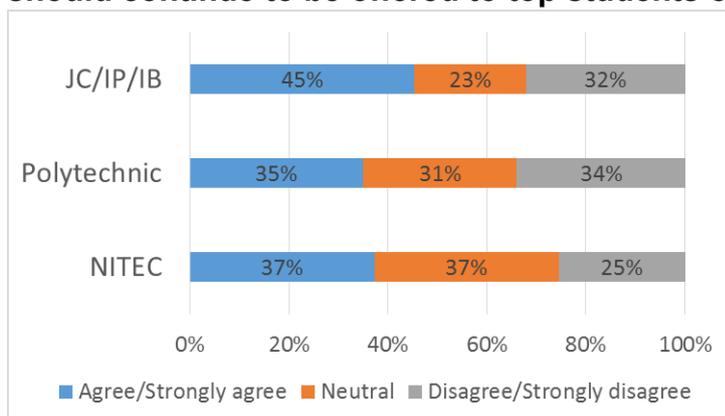


Figure 3.3 shows that the level of support for a programme is linked to eligibility. Given that JC/IP/IB students are the ones who will qualify under the restriction, there is a clearly higher level of support among this group for limiting the IP scheme based on past performance. The fact that the level of support achieved is only a minority suggests both that the IP scheme is viewed as an attractive one, and its availability to only a select few.

Figure 3.3. Views about the statement “Integrated Programme (IP) scheme should continue to be offered to top students only.”

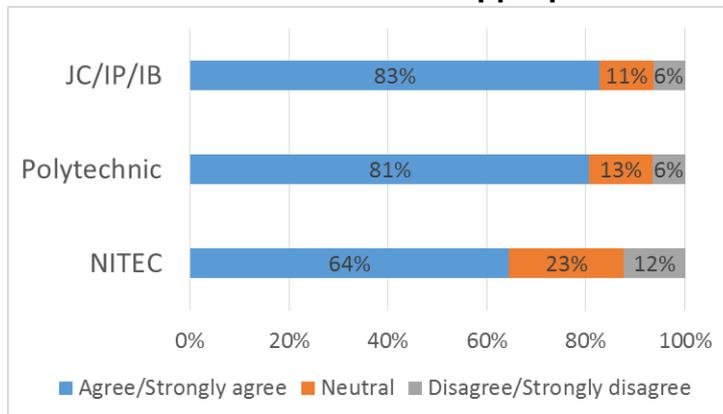


⁷ A respondent from the Polytechnic pathway refers to a nineteen year-old who was pursuing a diploma at one of the five local polytechnics in Singapore at the point of the survey. The five polytechnics are Nanyang Polytechnic, Ngee Ann Polytechnic, Republic Polytechnic, Singapore Polytechnic and Temasek Polytechnic.

⁸ NITEC stands for National Institute of Technical Education Certificate. A respondent from the NITEC pathway refers to a nineteen year-old who was studying for a NITEC qualification at the Institute of Technical Education (ITE).

Figure 3.4 shows that a majority of respondents from each of the education pathways agree about the use of major exams as a means of streaming students into the subsequent level of education.

Figure 3.4. Views about the statement “National Examinations such as GCE N/O/A- Levels continue to be appropriate to stream students to the next level.”



There is also a significant difference of opinion by gender, with female respondents less supportive of the abovementioned secondary school streaming-related policies.

Given the fact that Singapore’s nineteen year-olds are very opinionated when it comes to the education system, it is an important finding that they agree that many important features of the current system should be retained. The proportion who feel that major national exams at the secondary and post-secondary levels are appropriate accounts for more than three-quarters of the sample, and is more than ten times the proportion of those who do not agree.

The gifted education programme (GEP) sees only marginally weaker support.

Of the policies, only two – streaming at P4 and confining the IP scheme to top students – saw support below 50% while the proportions of those sitting on the fence were largest, but even then, the proportions who explicitly disagreed were lower.

Figure 3.5 puts the focus on a policy change which many have advocated, which is to discontinue with the PSLE. The results show that despite the widely held opinion that it is a stressful experience, nineteen year-olds favour retaining it with a robust support rate of 73%.

Figure 3.5. Finding PSLE stressful, and supporting its continuation

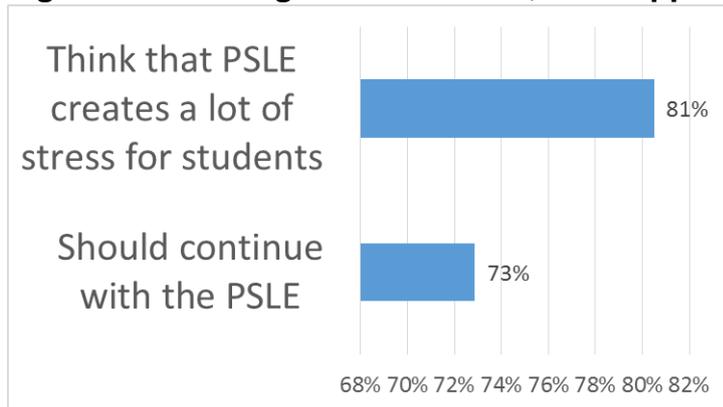
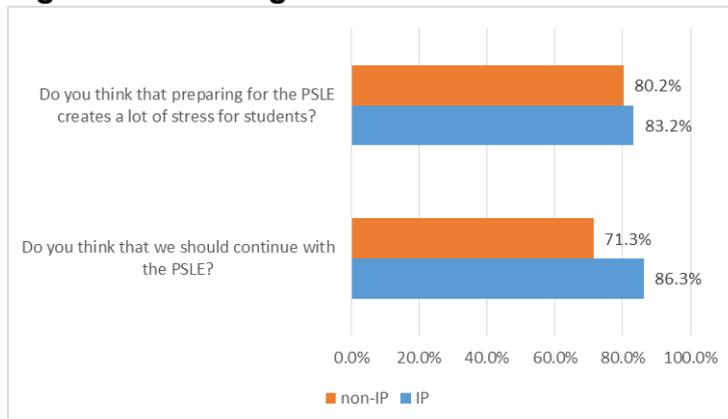


Figure 3.6 shows that there is a stronger level of support among those who graduated from the IP for continuing with the PSLE.

Figure 3.6. Do IP graduates' have a different view of PSLE?



This should not be surprising in light of the finding in the next graph below, which show that a majority of IP graduates said getting into IP had been their aim (Figure 3.7 below). For them, the PSLE had enabled them to achieve their aim and so would have been viewed in a positive light. This again shows that their views of nineteen year-olds are tied to their personal experience.

Figure 3.7 shows that IP graduation rates of those who aimed for the scheme while they were in primary school are significantly higher than those who say they did not aim for the scheme.

Figure 3.7. Getting into IP requires setting it as a target

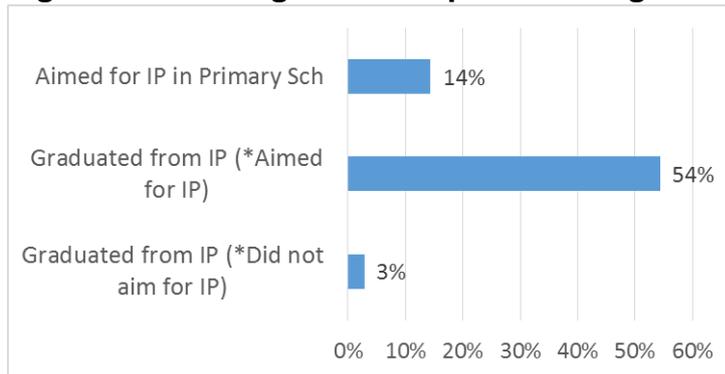


Figure 3.8 shows that this difference is significant even after accounting for the effect of SES, which is itself significant.

Figure 3.8. Targeting the IP scheme produces better results regardless of SES

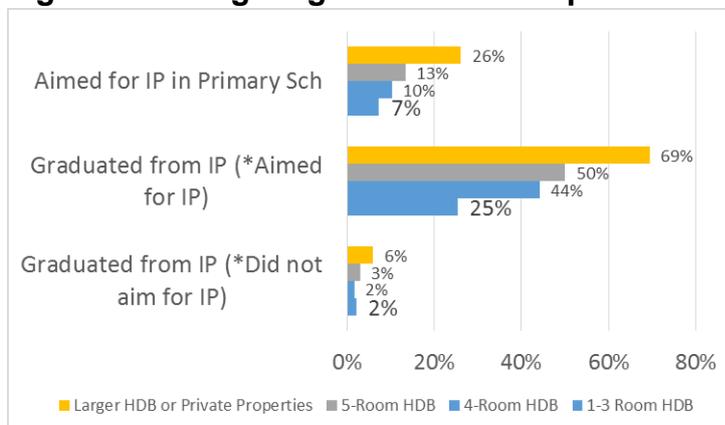
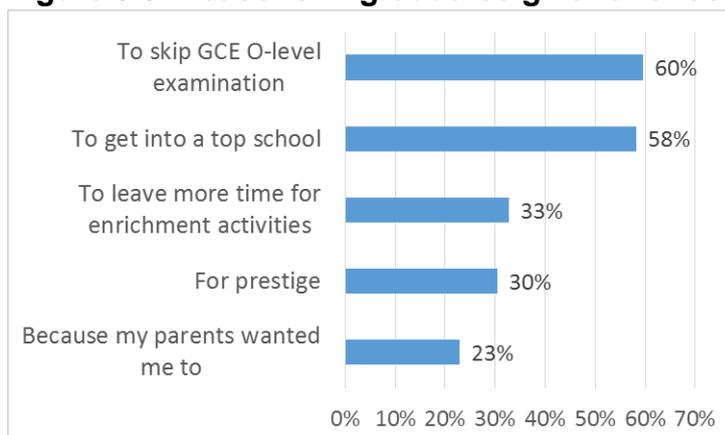


Figure 3.9 shows the distribution of responses from IP graduates to the question about the reason for their choosing the Integrated Programme.

Figure 3.9. Reasons IP graduates give for choosing the IP



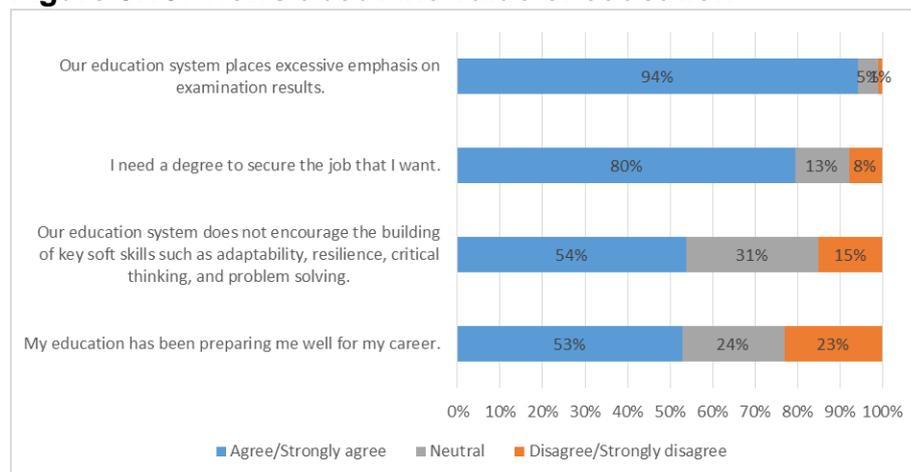
The responses show that a practical reason – being able to skip the major hurdle that the ‘O’ levels represents – was the top reason with more than half in support. Getting into a top school was the second most popular reason and the only other which received more than half of the responses in support. Reasons that seemed to be

motivated by emotion – prestige and parental pressure – rated the lowest, with less than a third of respondents in support.

Interestingly, a closer look the responses also reveals compelling evidence that parental pressure exists for the lowest SES group. The effect of parental pressure was brought up by participants during a focus group discussion conducted as a follow-up to the survey. The strength of opinion displayed during that discussion strongly suggests that much of the angst surrounding debates about the PSLE is viewed by nineteen year-olds as an adult affair. In other words, we interpret the nineteen year-olds’ view as saying that the main problems they associate with an exam like the PSLE are those due to parental pressure to perform and perhaps what they perceive as the limitations in future education choices (e.g. choice of secondary school) brought on by poor performance at the exam.

Figure 3.10 shows the extent to which respondents agree with statements which describe the general education landscape in terms of the possible benefits they gain from having studied in it.

Figure 3.10. Views about the value of education

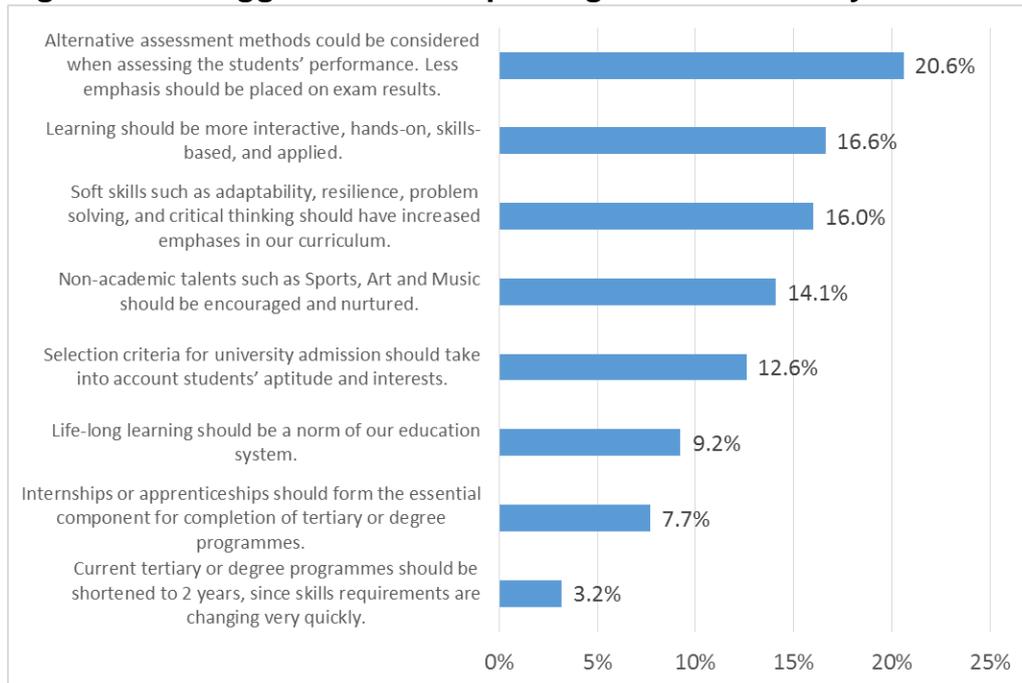


As expected, the strongest agreement was about excessive emphasis on examination results, reaching 94% and with only 1% disagreeing.

On the need to have a degree to secure a desired job, 4 out of 5 agreed. However, just over 50% agreed that their education was preparing them well for their career, yet that it did not encourage the building of key soft skills such as adaptability, resilience, critical thinking, and problem solving. There is therefore a contrast between whether the education system was meeting short-term or long-term needs.

Figure 3.11 shows how respondents rank various pre-specified ways for improving the education system in Singapore.

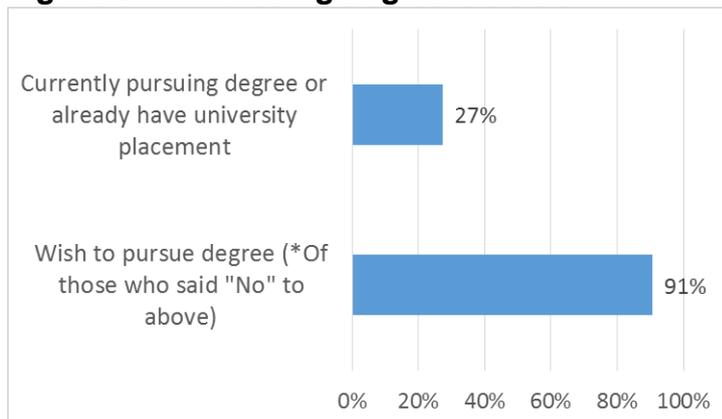
Figure 3.11. Suggestions for improving the education system



The top-ranked option is to reduce the emphasis on examinations and explore alternatives, while the lowest-ranked option is to shorten the duration of degree programmes.

Figure 3.12 shows the proportion of respondents who already have a place in university. For those who did not, it also shows the proportion who wished to pursue a degree.

Figure 3.12. Pursuing degree studies



The sample shows that about 3 in 10 already have a place in university to pursue a degree. This proportion is lower than the reported figures that have become available recently.⁹ A likely explanation for the discrepancy between the rate implied by this study and that in the latest published statistics is that the cohort participation in university education has yet to be fully realised by age nineteen.

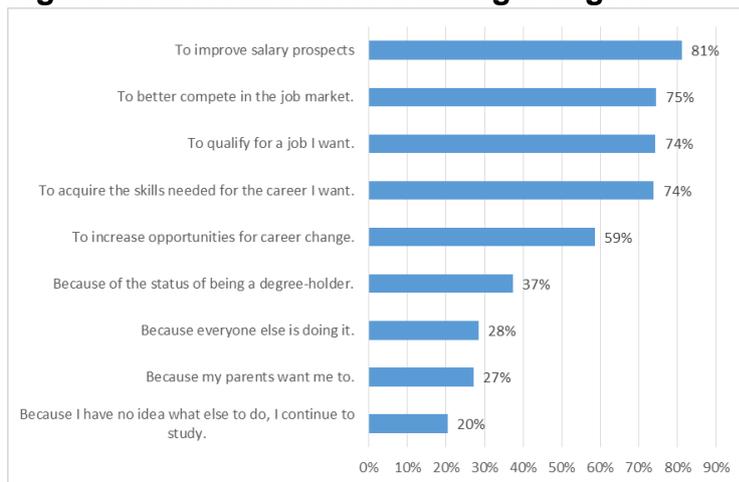
⁹ see, for e.g., <https://data.gov.sg/dataset/percentage-of-p1-cohort-admitted-to-post-secondary-education>

More than 9 in 10 who do not yet have a place in university would like one.

There is also evidence that the achievement of university place is heavily related to SES, with a 30 percentage point difference between the rates of the extreme SES groups.

Figure 3.13 shows the responses about reasons for wanting to pursue a university degree. The four most popular reasons are directly related to employment prospects, while the fifth is about long-term career prospects. All five have roughly similar rates above 50%.

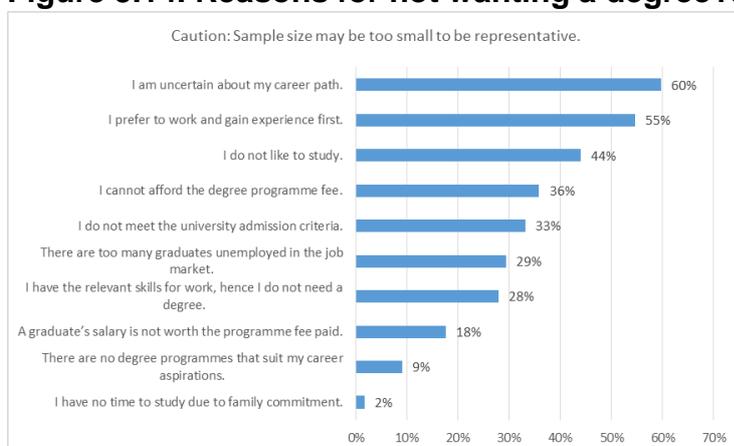
Figure 3.13. Reasons for wanting a degree



The remaining reasons are linked to less clearly tangible outcomes and have lower rates of support. In that sense, this resembles the case of Figure 3.9. However, unlike that case, there is no evidence of parental pressure linked to SES here.

Figure 3.14 shows the reasons selected by those who had indicated they did not wish to pursue a degree. The top reason is uncertainty about career path. However, given the very small size of the sample upon which these responses are based, it is not possible to generalise these to nineteen year-olds with any degree of confidence.

Figure 3.14. Reasons for not wanting a degree¹⁰



¹⁰ The margin of error for the estimate proportions reported in this graph could reach ± 12.5 percentage points, making them much more imprecise than other estimates in this study. See footnote 5.

Figure 3.15 shows the top-ranked factors respondents indicated would affect their choice of job.

Figure 3.15. Factors in deciding choice of job.

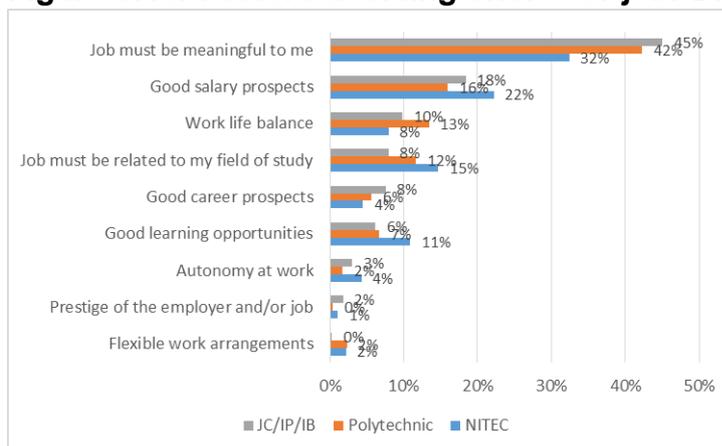


The most important factor was that the job should be meaningful. This was more than twice as popular a choice as the next highest ranking factor of salary.

The two stands in contrast in some ways, with the second being clearly better defined and measurable. This may suggest that there is a reluctance to commit at this point to anything tangible. Alternatively, it could suggest that the choices presented do not match the ideal job that nineteen year-olds have in mind, while being realistically achievable.

Figure 3.16 shows the differences between respondents based on education pathways.

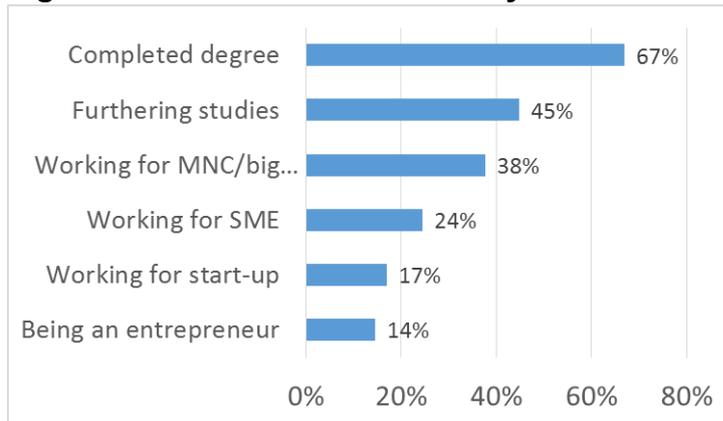
Figure 3.16. Factors deciding choice of job: Difference by education pathways



There is arguably a greater tendency for those from the NITEC pathway to focus on job characteristics on the basis of more realistic factors than those from the JC/IP/IB pathway. Such factors include salary, being related to field of study and providing good learning opportunities.

Figure 3.17 shows the responses to the question about where respondents see themselves in 5 years' time.

Figure 3.17. Vision of self in five years' time



As the top choice, two-thirds of respondents see themselves as having completed their degree studies by then. This shows the extent to which the pursuit of a degree occupies the lives and thoughts of the majority of nineteen year-olds.

Considering the fact that only 27% have reported already getting a place, the picture this presents of nineteen year-olds is a strong preoccupation with further education as a future – yet not terribly distant – goal.

However, even with the expanded targets for cohort participations to reach 40%, this could still leave up to a quarter of nineteen year-olds with the prospect of being unable to reach that vision of achievement that they report in this study as seeing for themselves.

In comparison, none of the other options in Figure 3.17 come close, and no other exceeds the 50% threshold.

Looking further into the composition of those who see themselves as having completed their degree studies in 5 years times shows that the largest proportion – 39% of all respondents - are those from the Polytechnic education pathway, while only 4% are from the NITEC pathway.

The choices are not mutually exclusive and respondents can pick more than one. Hence, of the 14% who picked entrepreneurship as their 5-year vision, 9% also picked having completed their degree. Similarly, of the 17% who see themselves in a start-up in 5 years' time, 11% also picked having completed their degree.

Of the 33% who do not see themselves with a degree in 5 years' time, 20% also selected being in further studies.

As expected, a very small proportion - only 13% - indicate that they are neither expecting to have completed their degree or to be furthering their studies in 5 years' time.

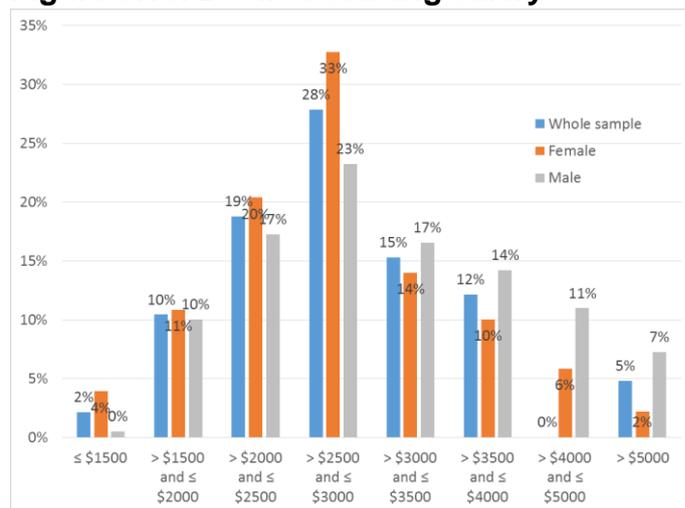
This group consists mainly of those in the Polytechnic and NITEC education pathways, but there are also some from the JC/IP/IB pathway.

For this group, their 5 year vision is made up of working in the following organisations or capacity, in order of importance: MNC/big local organisation, SME, start-up and as an entrepreneur.

Finally, in order to complete our understanding of the views of nineteen year-olds about employment, we also asked about their salary aspirations.

Figure 3.18 shows the distribution of responses by gender for desired starting salary.

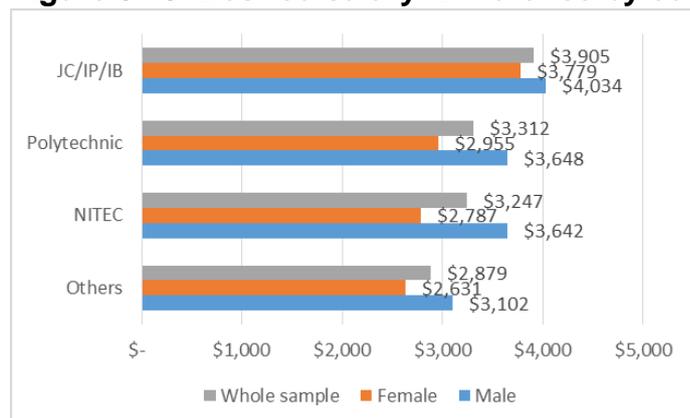
Figure 3.18. Desired starting salary



The distribution of responses from female respondents is clearly lower. Interestingly, this apparent “gender disparity” in salary aspirations is not only statistically significant, it remains so after taking into account other factors.

Apart from gender, education pathways is also significant in determining salary aspirations (Figure 3.19).

Figure 3.19. Desired salary: Difference by education pathway



The ordering of the differences by education pathway in Figure 3.19 bears a close resemblance to the data reported for starting salaries of graduates from the local universities, polytechnics and ITE.¹¹ The correlation between the two is unlikely to be coincidental. This strongly suggests that respondents who have yet to graduate could

¹¹ <https://stats.mom.gov.sg/Pages/Graduate-Starting-Salary-Tables2017.aspx>

already be aware of the salary prospects their alumni enjoy. If this is true, we could go even further and postulate that the primary lever for addressing inequality in Singapore is to ensure that the full spectrum of education opportunities are open to those from all education pathways, and that no pathway leads to a dead-end in terms of furthering education.

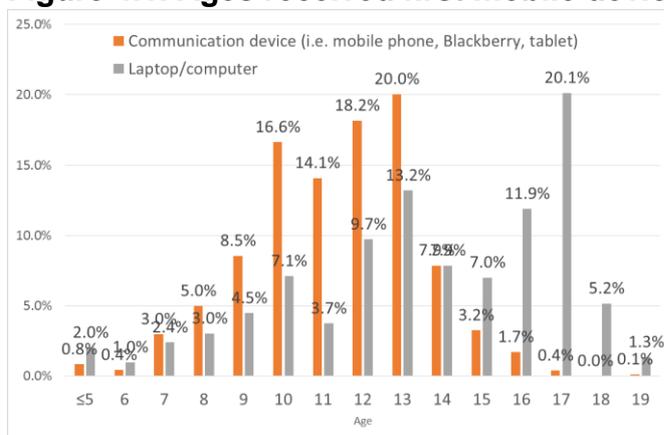
4. Media Consumption

We consider next the findings about media consumption. This include internet use, social media, and the demand for and usage of communication devices. The importance of media consumption for young people lies in the fact that new media sources are their primary – for many, their only – source of social, cultural and literary experience.

The average age at which nineteen year-olds receive their first mobile phones is around 11 years 4 months (11.36 years to be precise), while that average age at which they receive their first laptop/PC is around 13 years 7 months (13.6 years).

Figure 4.1 shows the distributions of the ages which respondents reported receiving their first mobile communication devices (hereafter, referred to as mobile phones) and laptops.

Figure 4.1. Ages received first mobile device, laptop



Figures 4.2 and 4.3 show that female respondents generally get their mobile phones at a younger age than their male counterparts, around six months earlier. For laptops/PCs, however, it is males who receive them about 9 months earlier.

Figure 4.2. Age received mobile phone: Difference by gender

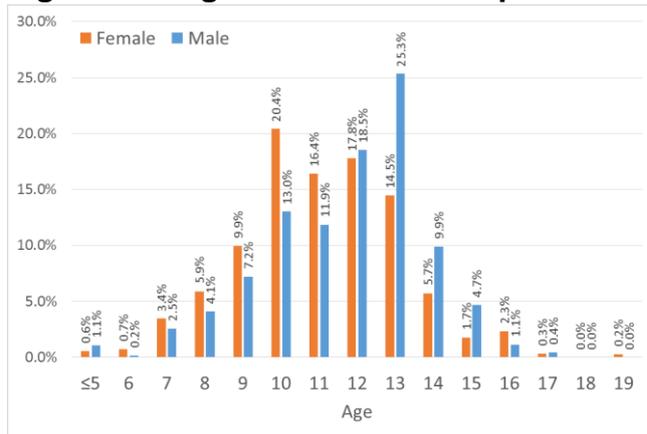
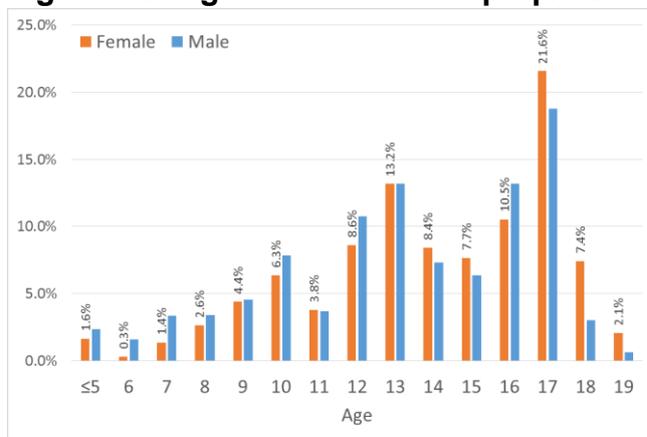


Figure 4.3. Age received first laptop/PC: Difference by gender



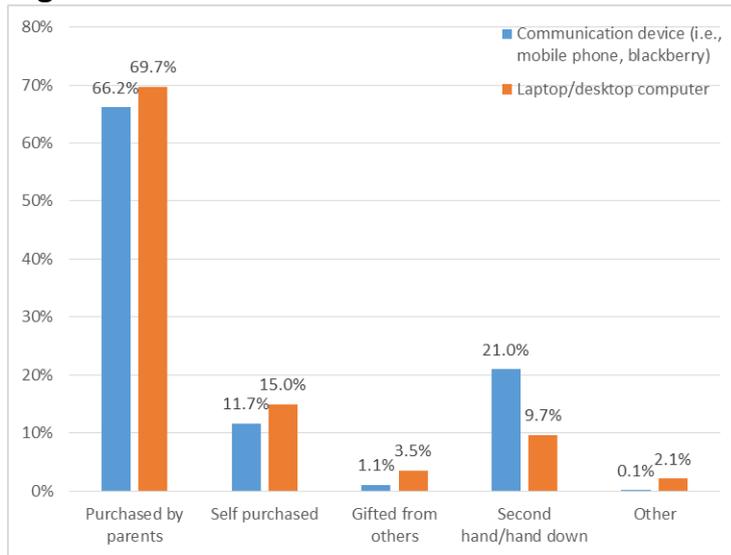
There is also a significant difference by race, with Chinese respondents getting their devices at younger ages; interestingly, there is no significant difference by SES.

The age differences where they exist are more pronounced for laptop/PC.

All the evidence point to the fact that these devices were introduced as aids in the education process, because the only difference across education pathways, but a highly significant one, occurs with IP graduates getting their laptop/PCs more than one year earlier.

Figure 4.4 shows the avenues through which respondents reported receiving these devices for the first time.

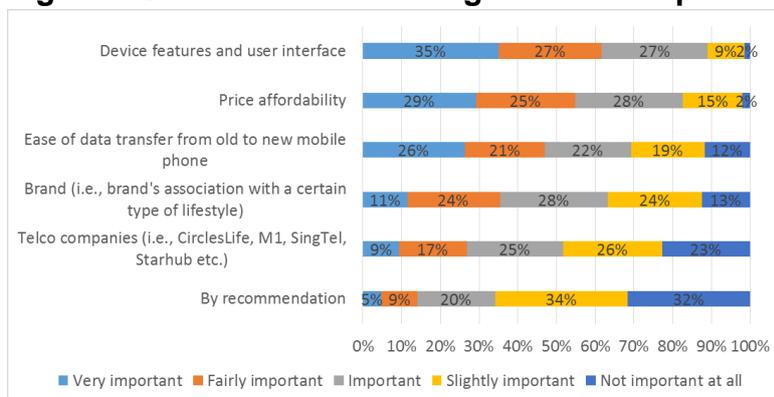
Figure 4.4. How first devices were obtained



The most common avenue was through parents. This is further evidence in support of the fact that the initial purchase by parents of such laptop/PC was primarily in support of their children’s education.

Figure 4.5 shows the degree of importance that respondents ascribe to certain factors when selecting a new mobile phone.

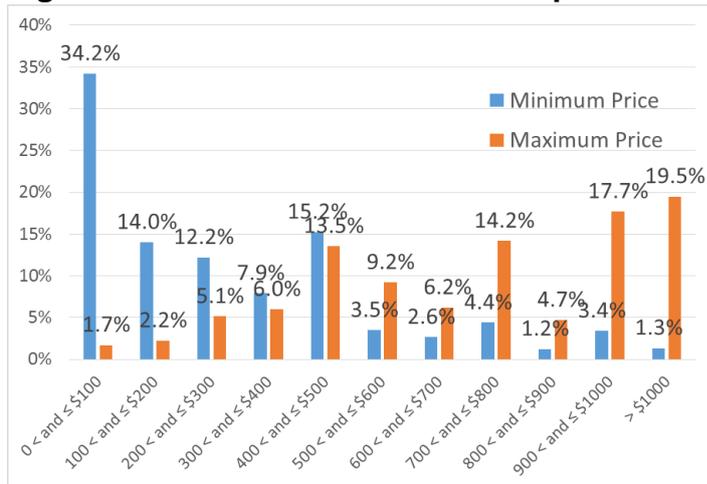
Figure 4.5. Factors in choosing new mobile phone



Price rates highly, with more than 54% believing it was either very important or fairly important. However, it is not rated as highly as device features and interface, which had 63% of respondents giving a rating of either fairly or very important.

Figure 4.6 shows the distribution of maximum and minimum prices that respondents report being willing to pay for a new mobile phone.

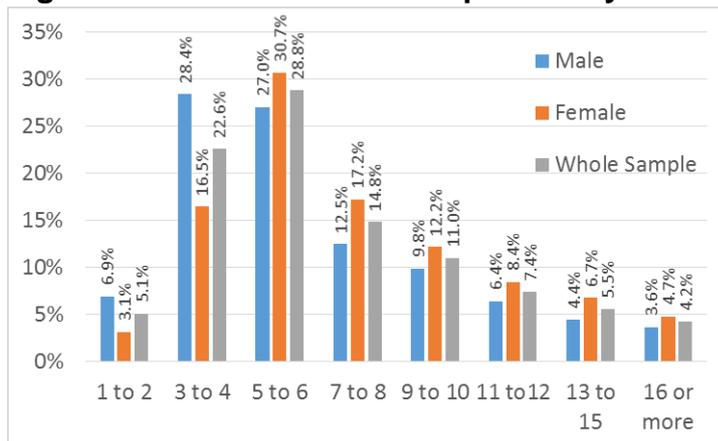
Figure 4.6. Minimum and maximum prices for mobile phones



Nearly one in five (or 19.5%) indicated a maximum price of \$1000.

Figure 4.7 shows the distribution of the number of hours that respondents report spending on their mobile phones daily.

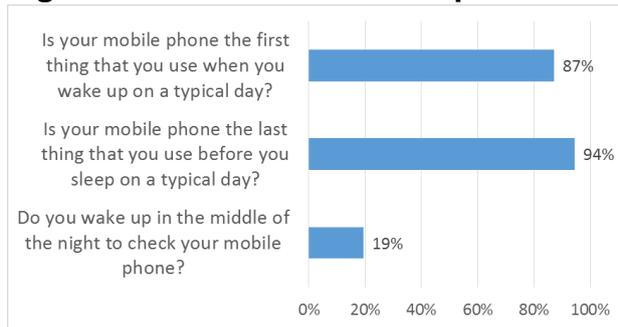
Figure 4.7. Number of hours spent a day on mobile phones



On average, female respondents report spending close to 1 hour more a day on their mobile phones. Among SES groups, those in the highest SES group spend more than 1 hour less a day. The overall patterns of mobile phone use suggest that overuse could be associated with disadvantaged segments.

Figure 4.8 presents further evidence of what could potentially be regarded as excessive use of mobile phones.

Figure 4.8. Excessive mobile phone use



About 9 in 10 say that their first act of the day would be to check their mobile phones with the same figure reporting it as their last act of the day. Not surprising, the two are highly correlated, so that those who report the former are also much more likely to report the latter.

Those who say they wake up to check their mobiles also report 2.5 hours more of daily usage. To examine the extent of this phenomenon in greater depth, respondents who say they do wake to check their phones were also asked the number of times they did so in a typical night. Figure 4.9 shows the distribution of responses.

Nearly one in five respondents (19%) say they wake up in the night to check their phones; of these, the vast majority (90%) check it at most 3 times a night.

Figure 4.9. Waking up to checking mobile phone at night

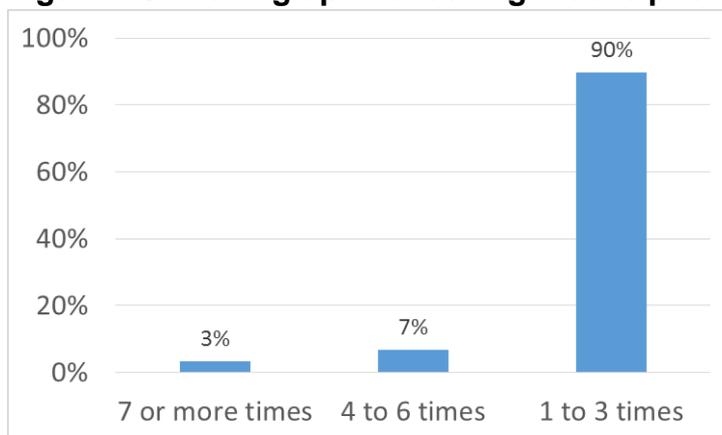
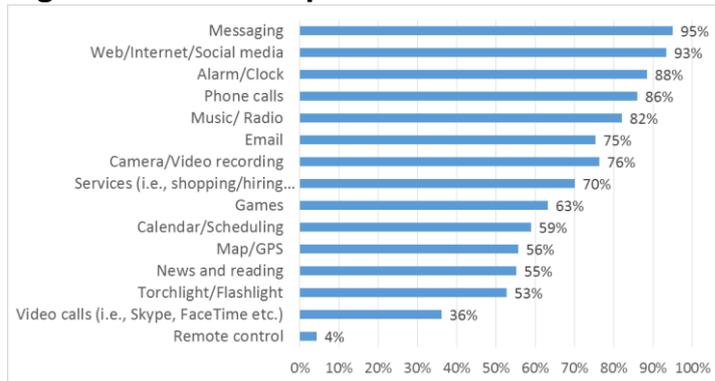


Figure 4.10 shows the types of use that respondents put their mobile phones to on a typical day.

Figure 4.10. Mobile phone functions used in a typical day

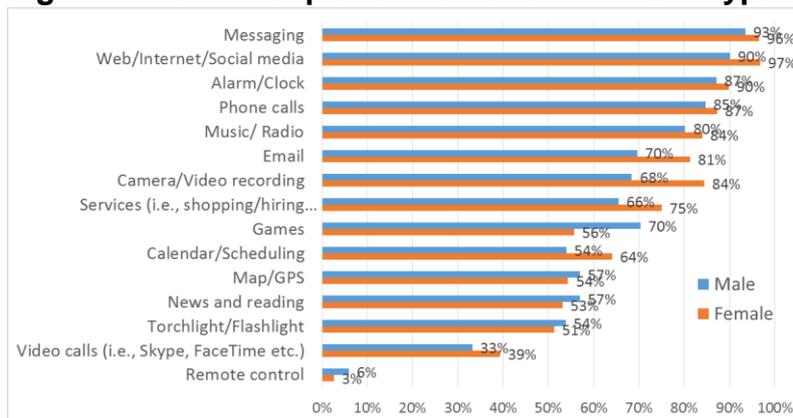


All but two of the listed functions received at least 50% affirmative response. Of these, the most frequently cited function was messaging, while the least frequently cited ones were for keeping up with the news and general reading (55%) and for its torchlight/flashlight function (53%).

The two listed functions which received less than 50% affirmative response rates were video calls (33%) and as a remote control (4%).

Figure 4.11 compares the responses by gender.

Figure 4.11. Mobile phone functions used in a typical day: Difference by gender



Although the overall patterns of use are broadly similar across gender, there are significant differences in specific rates of usage.

As the figure shows, females are more likely to be users of the majority of the listed functions, while males are only more likely to use their mobile phones for four of the listed functions, beginning with games.

An important difference is with services such as online shopping. This is examined in further detail below.

Figure 4.12 shows that 64% of female respondents use online services in a typical month, more than the 57% rate reported by males.

Figure 4.12. Used online services in a typical month

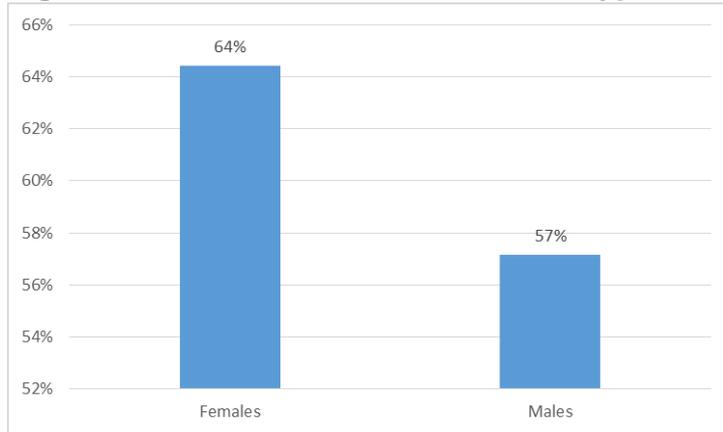
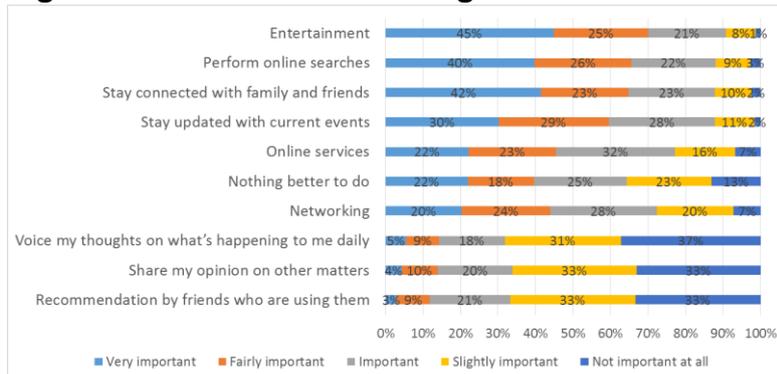


Figure 4.13 presents the reason that respondents selected for their use of social media.

Figure 4.13. Reasons for using social media

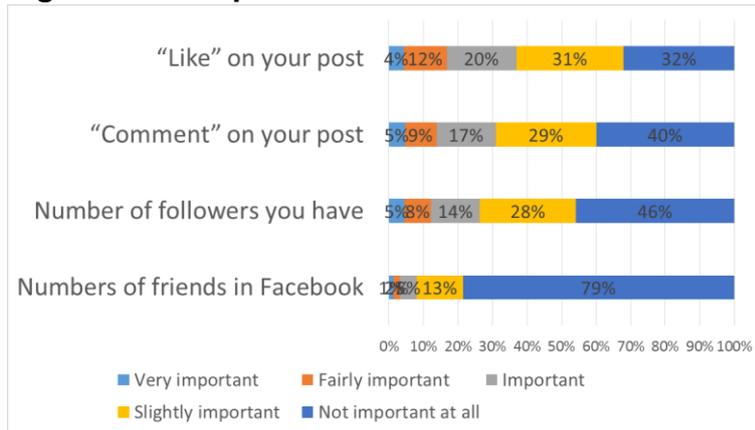


Only four of the listed reasons are rated either very or fairly important by at least 50% of respondents. The four are entertainment, followed by performing online searches, staying connected with family and friends, and keeping up with current events.

The three which are rated very or fairly important by less than 15% of respondents are voicing thoughts on personal experiences, sharing of opinions, and receiving recommendation from friends.

Figure 4.14 shows the extent of the importance which respondents ascribe to various indicators of their social media popularity.

Figure 4.14. Importance of social media ‘assets’



For those to whom social media popularity is highly valued, such indicators could be interpreted as their social media ‘assets’. This interpretation is justified on the basis that those who have a significant amount of such assets are in a good position to monetise them.

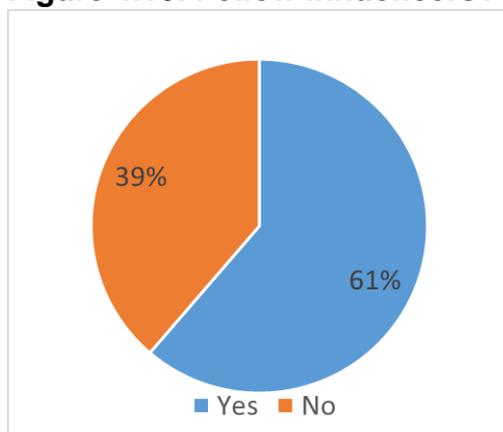
A detailed analysis also reveals that respondents from different education pathways ascribe significantly different levels of importance to the various social media ‘assets’.

The gender difference here shows males are more concerned than females. Given the higher usage rates of females of mobile devices seen so far, this suggests that nineteen year-olds make clear distinctions between specific forms of electronic communications.

In general, it appears from Figure 4.14 that nineteen year-olds are rather reserved when it comes to ascribing importance to such social media indicators.

Figure 4.15 shows the results from further inquiry into a phenomenon linked to social media popularity.

Figure 4.15. Follow influencers?

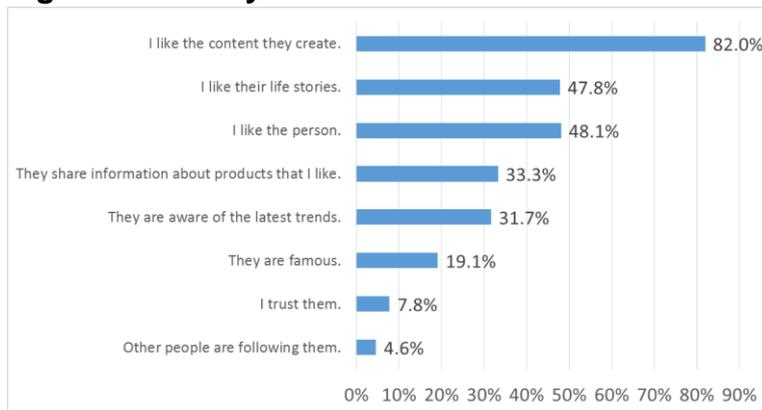


It shows that a majority of respondents - 3 out of 5 – follow social media influencers. These are personalities who have been able to monetise their popularity on social media.

Although female respondents are more likely to admit following influencers on social media, the difference by gender is insignificant. There is also no significant association by race, SES or education pathway.

Figure 4.16 shows the results from a follow-up question about social media influencers.

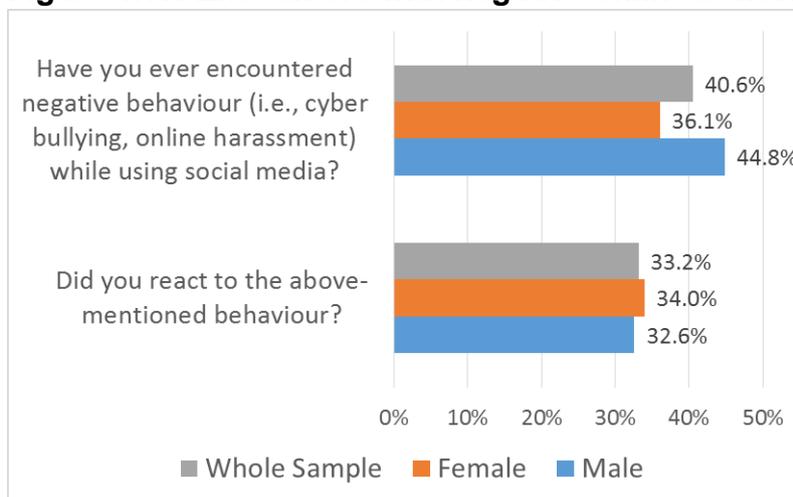
Figure 4.16. Why follow influencers?



In selecting the reason for following such influencers, the only one which received more than 50% support was the content they produced.

Figure 4.17 shows the proportion of respondents who reported encounters with negative online behaviour, including cyber-bullying. 4 in 10, less than half of respondents, reported encountering negative online behaviour.

Figure 4.17. Encounters with negative online behaviour

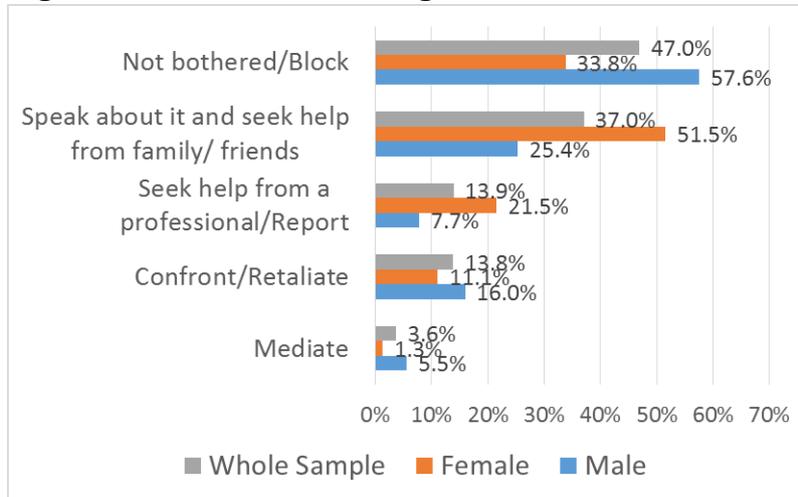


The results show that males are more likely to report they have encountered negative online behaviour.

Interesting, a simple regression shows that each additional hour of phone use actually leads to 1 percentage point higher probability of encountering negative online behaviour.

Those who said they reacted to the negative online behaviour were asked a follow-up question about the type of reaction they had. Figure 4.18 shows the responses. Although respondents could select multiple choices, most made only one selection.

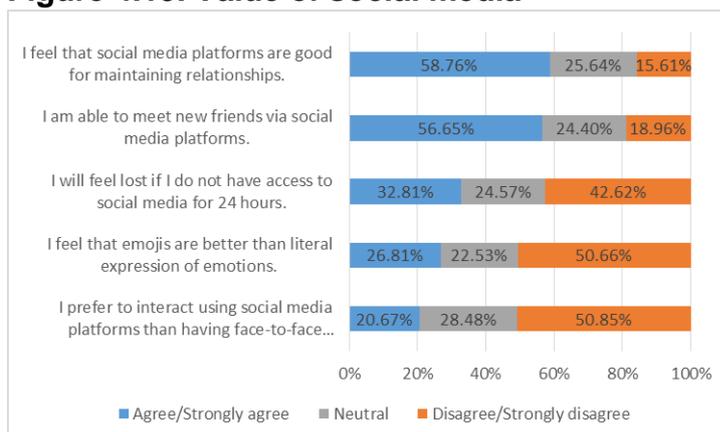
Figure 4.18. Reaction to negative online behaviour



The results show that the most frequent type of reaction was a passive one: more than 50% of male respondents who had said they reacted claimed they were not bothered. However, a minority wrote in that they had reacted by retaliating, something that was not provided in the list.

Figure 4.19 shows the opinions that respondents hold about conducting interactions through social media.

Figure 4.19. Value of social media



Despite appearing self-evident, these sentiments actually go to the heart of whether the mind-set of nineteen year-olds differs from that of older generations, regarding how social relationships are formed, and maintained.

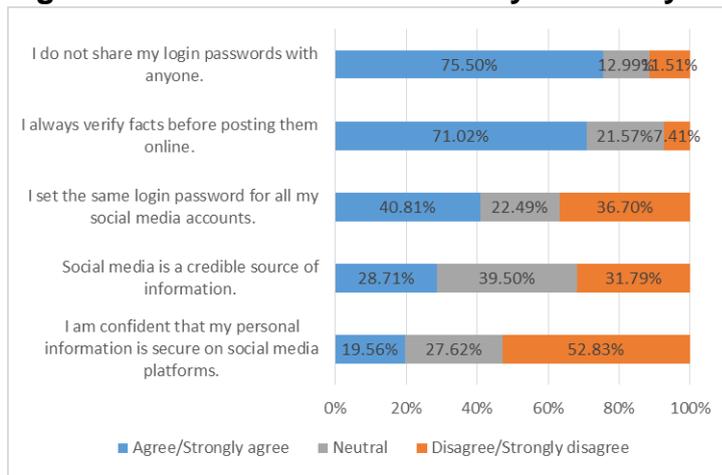
Only two of the statements received more than 50% level of support. These are to maintain relationships and form new ones. These represent a rather conservative mind-set, something that will occur in other aspects of relationships examined in this study.

Having said that, 1 in 5 respondents actually prefer interacting through social media rather than face-to-face, while 1 in 3 say they would feel lost if they had no access to social media for a day.

These are the new trends which define not just nineteen year-olds but all of today's generations. The difference for nineteen year-olds, as has been noted by other commentators, is that nineteen year-olds do not know of any experience with a reality without the presence of online social media.

Figure 4.20 shows the extent of agreement with various statements about cyber awareness.

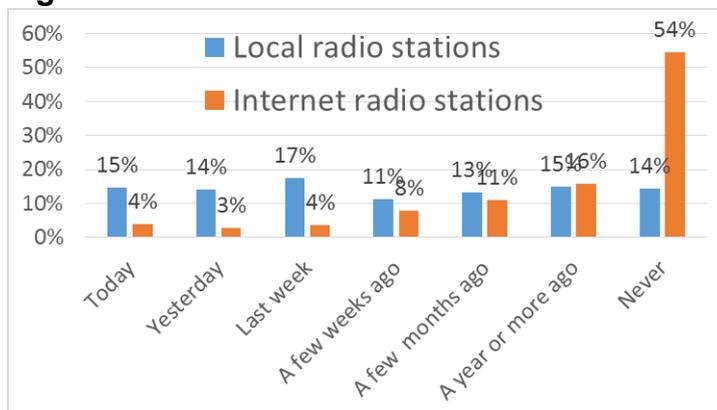
Figure 4.20. Views on issues of cyber-safety



On the face of it, the results are somewhat reassuring. However, 1 in 5 (19.6%) feel confident about the security of their personal information on social media, while nearly 3 in 10 (or 29%) agree that social media is a credible source of information. These are not insignificant numbers and show that social media represents a potent source of influence in lives of nineteen year-olds.

Figure 4.21 shows the distribution of respondents who report on listening to the radio.

Figure 4.21. Last time listened to radio



Obviously, the radio no longer has the status it did a generation ago. The responses in this study provide some evidence that a substitution between social media and traditional media – specifically the use of radios in this case – has occurred with

nineteen year-olds. There is a significant negative correlation between the reported frequency of tuning in to local radio stations and the use of social media, proxied by the responses shown in Figure 4.19.

There is a very strong correlation between accessing local radio stations and accessing internet radio stations. The overall evidence strongly suggests that the two are complements rather than alternatives. Hence, access to internet radio stations is employed by those who wish to expand their ability to tune into radio stations beyond just local ones.

Figure 4.22 shows the popularity of various channels/over-the-top (OTT) streaming that respondents report accessing.

The most popular by far is YouTube. With its almost universal reach, there are few alternatives which have the same rate of access among respondents.

Figure 4.22. Accessing various channels/OTT streaming

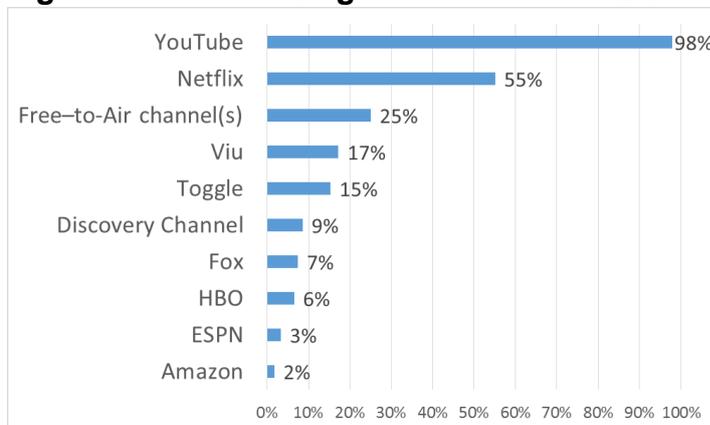


Figure 4.23 provides some evidence about the reading habits of nineteen year-olds, by showing the proportion of respondents who report reading each form of material.

Figure 4.23. Types of reading materials accessed



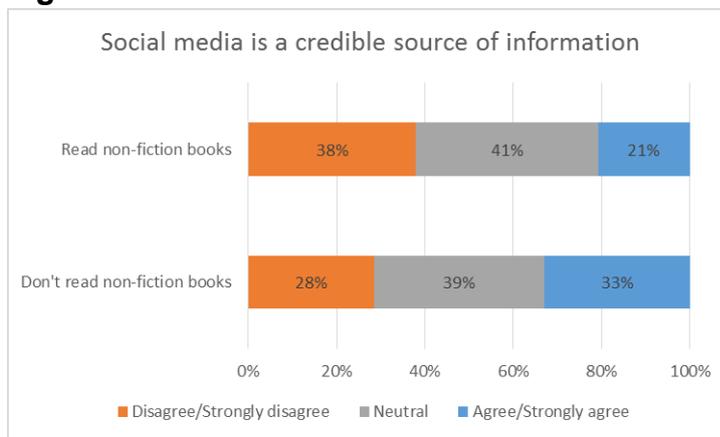
None of the materials reach a readership proportion of 50% of respondents. The highest is 48% for fiction books. About a third say they read e-newspapers, while a fifth say they read newspapers. Female respondents report a significantly lower rate of readership for hobby/interest-related magazines than their male counterparts.

Those from the JC/IP/IB pathway also report significantly higher readership of blogs/online reviews, as well as all other listed types of e-materials including fiction and non-fiction e-books, and e-newspapers. At the same time, this group also reports significantly higher readership of fiction and non-fiction books of the non-electronic versions.

The respondents who read fiction e-books are much more likely to read fiction books (non electronic) as well as non-fiction e-books.

There is also evidence that social media is a substitute for books. Figure 4.24 shows the difference in opinion between those who report reading non-fiction books about credibility of social media as a source of information.

Figure 4.24. Social media or books for facts?



For those who read such material, the proportion who agree exceeds the proportion who disagree by 17%. In contrast, for those who say they do not read non-fiction books, the proportion who disagree is higher, by 5%. The difference is statistically very significant.

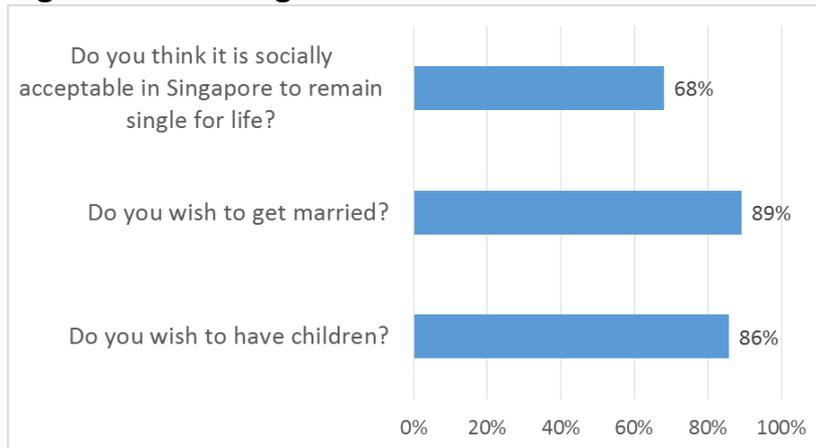
5. Personal Beliefs and Principles

In this section, we look at the survey results about the personal beliefs and principles of nineteen year-olds. The discussion includes opinions about relationships, marriage and family.

Half of the respondents report that they have not had a boyfriend/girlfriend yet, with the proportion for boys significantly higher by 8%. There is also significant difference across education pathways.

Figure 5.1 shows that while 2 out of 3 respondents deem it socially acceptable to remain single for life, close to 9 in 10 wish to get married, and only a slightly smaller proportion (86%) wish to have children.

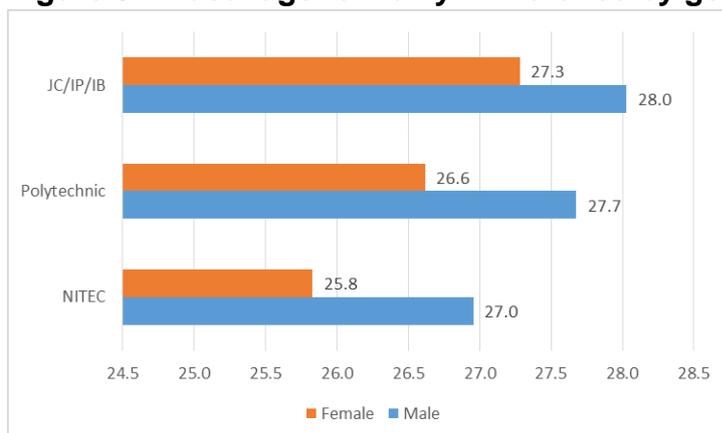
Figure 5.1. Marriage and kids



There is some correlation between a respondent's opinion about singlehood and his/her wish to get married but it is not statistically significant.

For those who responded positively about the wish to marry, a follow-up question was asked about the age they would ideally like to marry at. Figure 5.2 shows the average response (in years of age) about the ideal age of marriage by gender and education pathway of respondent.

Figure 5.2. Ideal age to marry: Difference by gender and education pathway

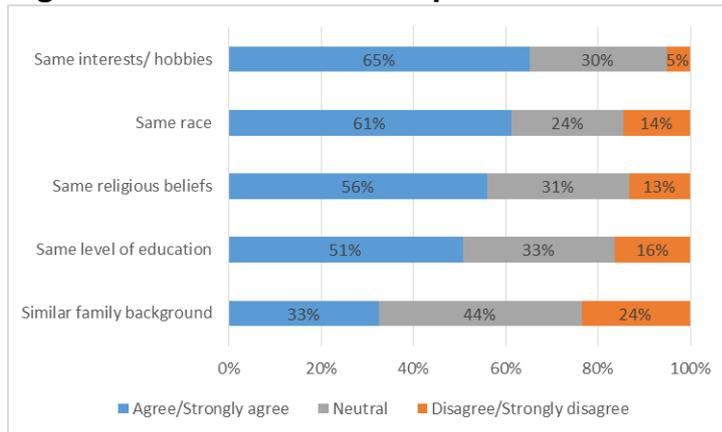


All else being equal, female respondents identified an ideal age of marriage that is on average 11 months younger than that identified by a male respondent.

For those who responded positively about the wish to marry, a second follow-up question was asked about the criteria they used for assessing their ideal partner.

As shown in Figure 5.3, of the 5 listed for selection, only one criterion failed to gain at least 50% agreement from those who responded. This related to the need for similar family backgrounds.

Figure 5.3. Criteria for ideal partner

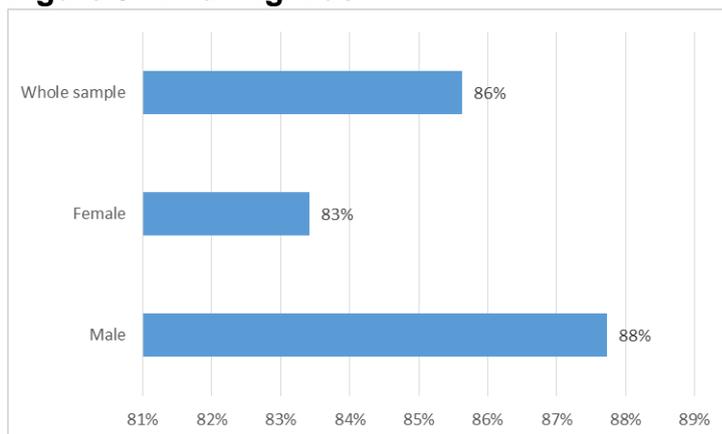


The highest-rated criterion – with 65% in agreement and only 5% against – was the need to have similar interests/hobbies. More readily quantifiable criteria – such as race, religion and education – were rated below this but still have support rates which were at least 3 to 4 times the rates against. This inclination to be idealistic in making such a critical choice was seen earlier in the case of jobs (Figure 3.16), and contrasts slightly with the more practical reasons for pursuing degree studies (Figure 3.14) as well as for choosing IP (Figure 3.9). This observation is, however, a selective one, since only the jobs question was posed to all respondents while the remaining questions were addressed to different sub-groups.

When we compare the responses to the above criteria by gender, we find that there is a significant difference. Female respondents have a higher rate of agreement with all the criteria, except the one relating having the same interests/hobbies.

Figure 5.4 shows the proportions which indicate they would like to have children. Overall, 86% of respondents would like to have children.

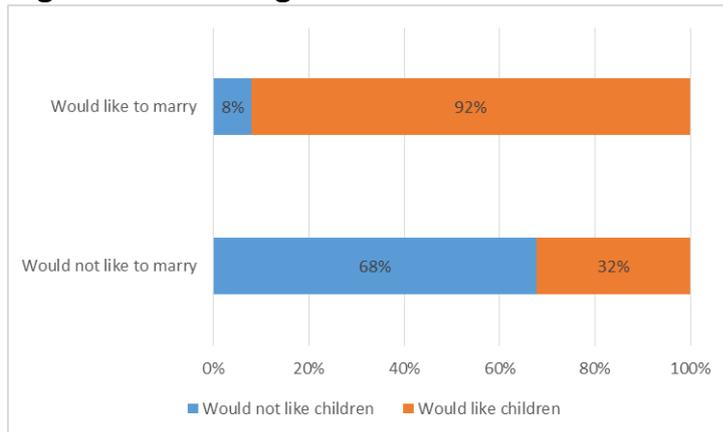
Figure 5.4. Having kids



Female respondents are slightly less likely to give an affirmative response, with the difference just statistically significant.

As the following figure shows, there is also a small proportion of respondents who would like to have children even while expressing no wish to marry.

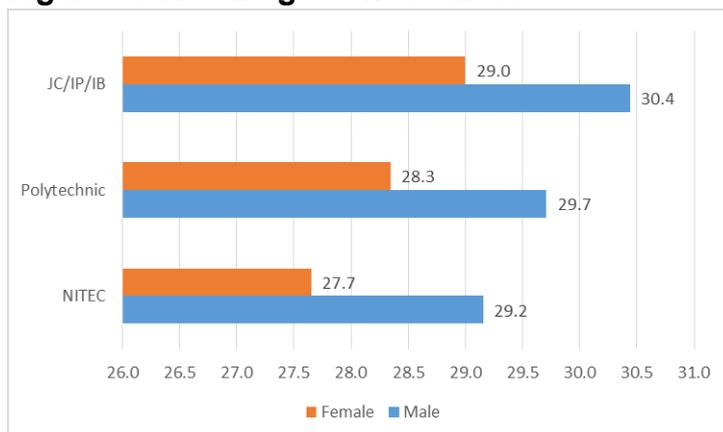
Figure 5.5. Marriage before kids?



For those who responded positively about the wish to have children, a follow-up question was asked about the age they would ideally like to have their first child.

Figure 5.6 shows the average response (in years of age) about the ideal age of having the first child by gender and education pathway of respondent.

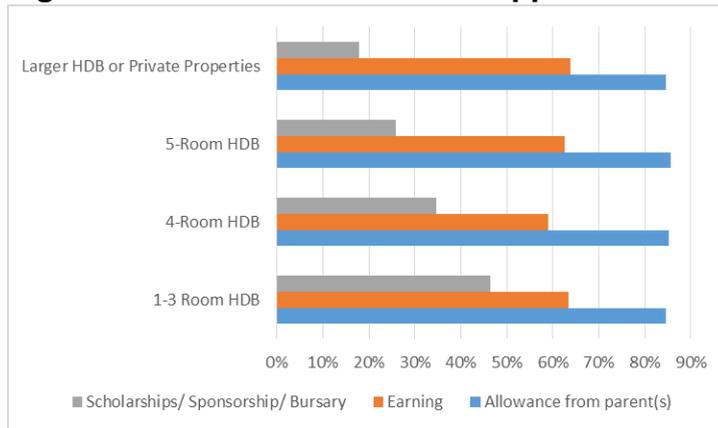
Figure 5.6. Ideal age to have kids?



All else being equal, female respondents identified an ideal age of having a first child that is on average 16 months younger than that identified by a male respondent. The pattern of responses here resembles that in Figure 5.2. It is also consistent with the correlation seen between the wish to get married and the wish to have children.

Figure 5.7 compares the proportion of respondents who derive their financial support from three main sources including parents, scholarship/sponsorship/bursary, and personal earnings.

Figure 5.7. Source of financial support

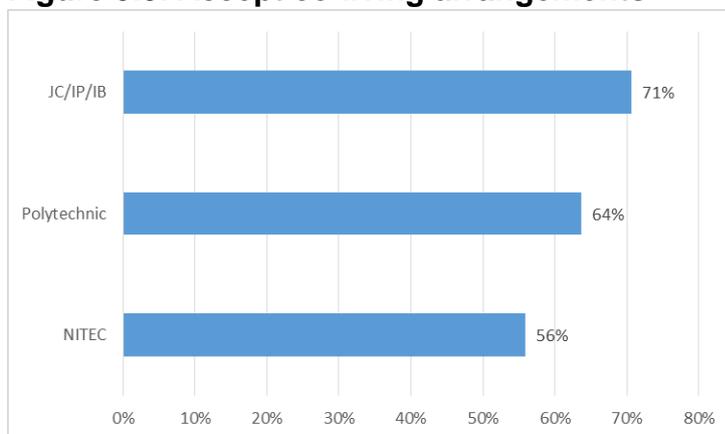


The comparison highlights the extent to which scholarship/sponsorship/bursary payments are important for the lowest SES group.

In this study, we also asked if the respondent would consider taking up co-living arrangements after briefly explaining what it involved. Close to two-thirds (or 64.8%) say they would.

Figure 5.8 compares the proportion of affirmative responses across education pathways. There is a decline in support from the JC/IP/IB pathway to the Polytechnic pathway, and a further decline from the latter to the NITEC pathway.

Figure 5.8. Accept co-living arrangements

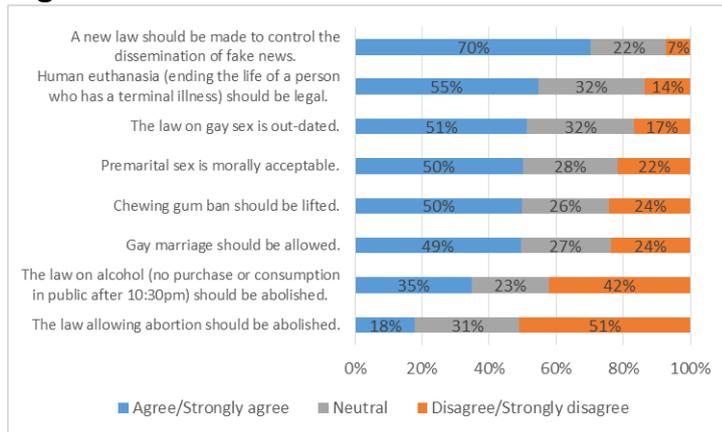


6. Local and global issues

In this section, we discuss the responses from the final section of the survey on local and global issues, including ones of major social, legislative or political significance.

Figure 6.1 shows the opinions about statements on selected local issues that have seen keen interest in the local context.

Figure 6.1. Views about local issues of interest



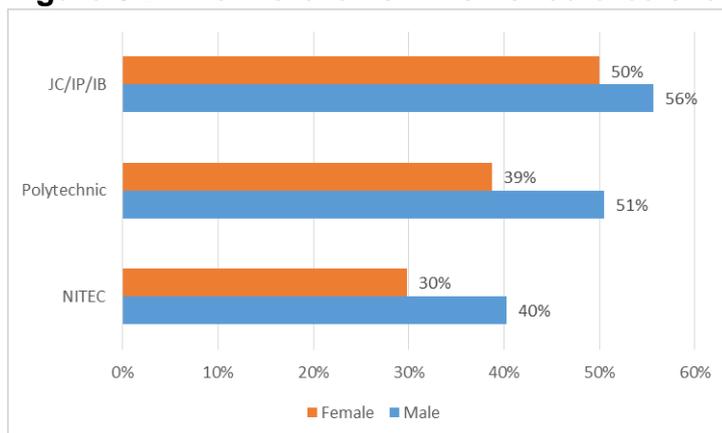
The statement which received the highest level of support and also had the lowest proportion of respondents who disagreed related to the need for a law against fake news.

The two statements which failed to come close to gaining 50% level of support related to the abolition of two laws - one on the late-night alcohol ban and the other on abortion. These two statements also had more respondents disagreeing than agreeing, which is quite unusual in this survey. It is also revealing to correlate these responses with those about other forms of online activity. For instance, those who report following online influencers (Figure 4.15) turn out to be significantly more concerned about fake news.

We asked respondents whether there were any policies or laws that the government should change. The proportion who responded affirmatively was 46%.

Figure 6.2 shows that the proportions of affirmative responses differ significantly by gender and education pathway.

Figure 6.2. Are there laws which should be changed?



We also asked whether there were any policies or laws that the government should not change. The proportion who responded affirmatively was 43%.

Figure 6.3 shows that the proportions of affirmative responses differ significantly by education pathway in a way which resembles the case of Figure 6.2. However, unlike that case, there gender difference is not statistically significant.

Figure 6.3. Are there laws which should not be changed?

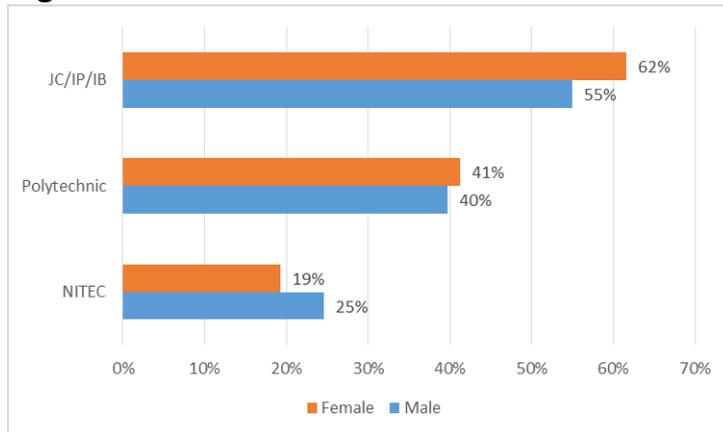
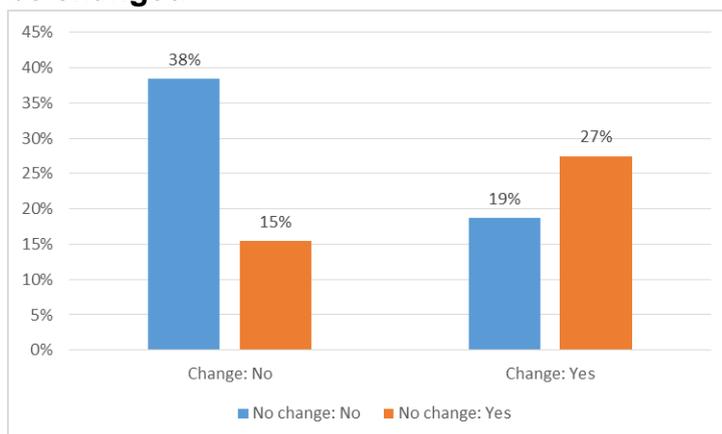


Figure 6.4 shows that there is a close correlation between responses to the two questions. A respondent is more likely to identify a law which should not be changed if he/she identified one which should be changed.

Figure 6.4. Identified laws which should be changed, and laws which should not be changed



There are some interesting connections with earlier responses which suggest how the opinions of respondents on questions such as those about laws could be shaped.

For example, those who report reading various types of materials are more likely to say there are laws which should be changed. The only notable exception are those who report reading religious texts. The most significant effect is seen with those who report reading e-newspapers (Figure 6.6).

Figure 6.5. Reading habits and opinions – e-news

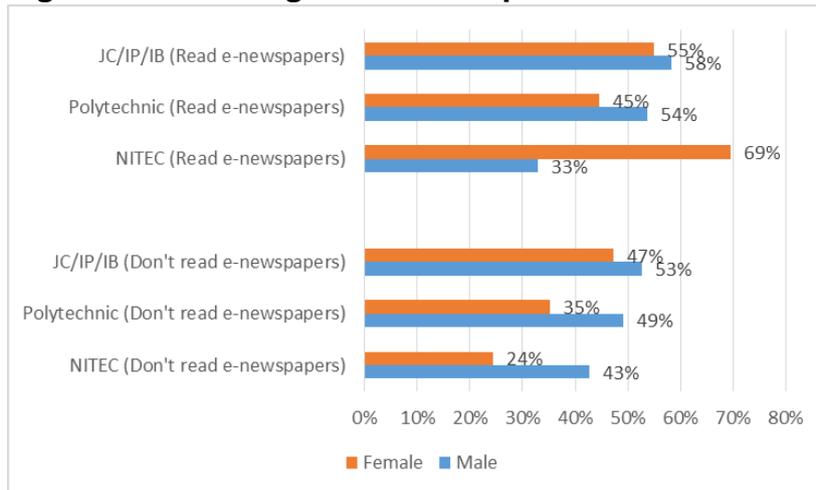
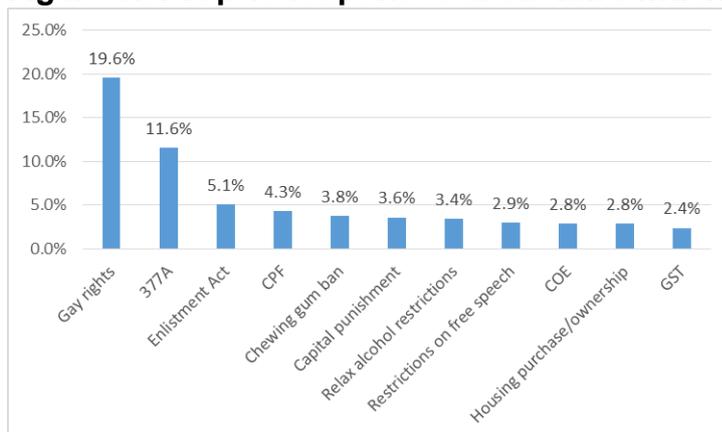


Figure 6.6 shows the top changes in the law which respondents said they would like to see. The graph shows only the 10 issues which have the highest proportions of responses.

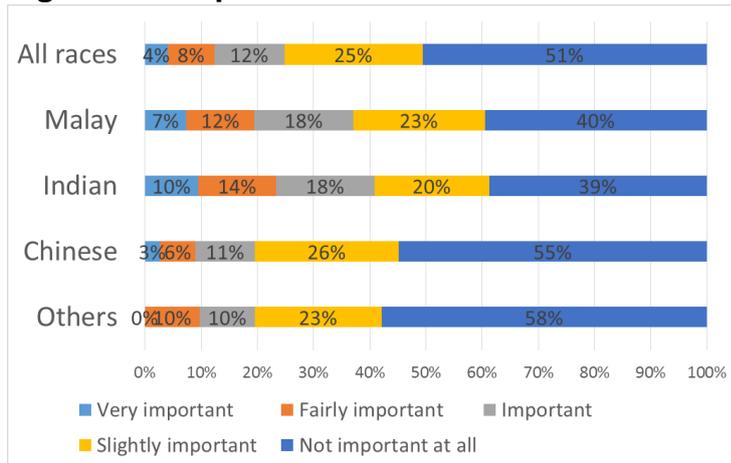
Figure 6.6. Top 10 responses about laws which should be changed



The three top issues named by those who said there was a law they wanted to see change to were gay rights (19.6% of those who named a change), 377A (11.6%), and the enlistment act (5.1%). The remaining proportion of those who had named a change were spread across a wide range of issues.

Figure 6.7 shows respondents' rating of the importance of the race of the Prime Minister in determining their vote at GE2021.

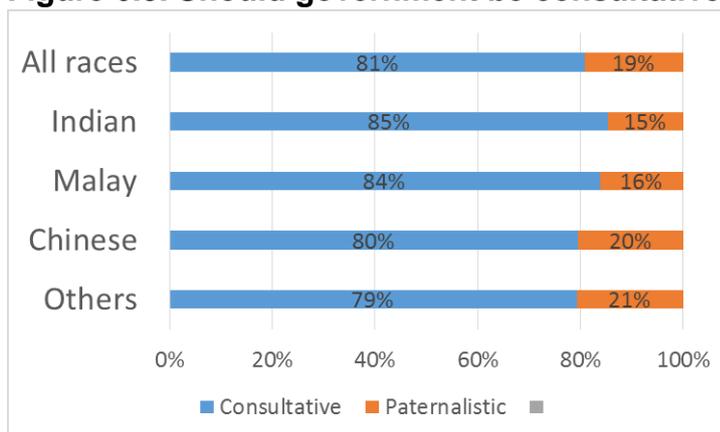
Figure 6.7. Importance of race of PM in determining vote at next election



There is a significant difference in the views by race. Respondents who identified themselves as Malays and Indian considered the issue more important.

On the question of whether the government should be more consultative rather than paternalistic, Figure 6.8 shows a pattern of responses by race that mirrors that of Figure 6.7 above.

Figure 6.8. Should government be consultative or paternalistic?



However, the difference is much less statistically significant.

Finally, we also asked whether there were local and global issues which affected respondents' view of life in general. IP graduates are significantly more likely to say that they keep up to date with local and global issues in the last six months, but are similar to most other respondents in saying that there are no such issues which have affected their views towards life in general. Those who say that local and global issues have affected their view towards life in general tend to feel that the race of the PM would not be a determining factor for their vote in GE2021. They are also significantly more likely to prefer a consultative to a paternalistic government.

7. Conclusion

The picture that emerges is of nineteen year-olds whose focus in life is not that much different from previous generations. They all want to have a good education, get a job that pays well, marry, start a family and build a successful career. The key difference is that they are doing in a different age with new challenges. An important implication that arises from this study is that based on current policy projections of the cohort participation rate, close to half of nineteen year-olds appear destined to be unable to fulfil their aspiration of getting a degree (Fig. 3.12, 3.17). The consequences of having such a significant proportion of young people potentially falling short of a key target like this when seen in the context of their having grown up in a society where so much revolves around education cannot be over-stated.

A starkly similar picture is presented when we interpret the results on marriage and starting a family (Fig. 5.2, 5.6). Close to 9 in 10 would like to get married and only a slightly lower proportion would like to have children (Fig. 5.1). For many, the ideal age to achieve both is by the time they turn 30. Given how momentous these two events are, it is clear that the window within which most people hope achieve this is very narrow.

These findings do not tell us how nineteen year-olds will turn out in the face of the challenges they face in life. It does tell us that for many, the challenges they are set to face in achieving the targets they have set themselves would not be trivial.

In concluding, we recapitulate some of the main findings of interest.

Singapore's nineteen year-olds seem to worry a lot, belying their youthfulness. Their main worries relate to bread-and-butter issues, such as getting a good job (Fig. 3.13, 3.17), long-term career prospects (Fig. 3.15), relationships (Fig. 5.1) and finances. The picture of young people with furrowed brows that comes out is a far cry from the lackadaisical worry-free attitude often associated of reckless youth portrayed by some types of media.

Perhaps surprising, Singapore's nineteen year-olds do not have a negative view of the PSLE. They feel that it should be retained, and are clear that the stress it causes is not a bad thing (Fig. 3.5, 3.6). More generally, they do not have as negative view of examinations in general as we might have expected. The results imply that nineteen year-olds are concerned with the way examination results affect or limit their education pathway due to streaming (Fig. 3.2), and are not really concerned about the exams per se (Fig. 3.1, 3.4).

In this study, we found that the types of gender divide that are known to exist on various issues is already detectable at age nineteen. There are clear gender distinctions across the board in areas as diverse as opinions on controversial social issues (Fig. 6.2, 6.3, 6.5), patterns of mobile phone use (Fig. 4.2, 4.6, 4.7, 4.11, 4.12), cyber wellness (Fig. 4.17, 4.18), salary expectations (Fig. 3.18). In spite of these differences, male and female nineteen year-olds do agree on at least two important things, namely marriage and having children. There is a strong desire that cuts across all SES groups, race and gender, to marry and have kids, and the age that nineteen

year-olds believe is ideal for achieving these life aims is within the next ten years of their lives (Fig. 5.2, 5.6). And it does not take much to figure out the implication for one, let alone two things of such an important magnitude – it is likely to be a race against time.

In terms of political views, an important finding is that the key minority groups are concerned about race in the choice of the nation's leader (Fig. 6.7). There are also significant differences across race groups of preferred leadership style (Fig. 6.8).

Finally, there is some suggestion that the experiences of nineteen year-olds from lowest-income group differ from their better-off peers. Inequality affects the vulnerable, and nineteen year-olds from the lowest SES group exhibit the effects of their background (Figure 2.8). However, there are also signs – encouraging ones – that some forms of government intervention have successfully made a difference (Fig. 5.7).

APPENDIX A – Survey Coverage

A-1. Target population

The sample comprises 1,056 respondents, all of whom were Singapore Citizens born in calendar year 1999.. Fieldwork was conducted from August to November 2018.

A-2. Fieldwork implementation

Data is gathered mainly through an online survey with a structured questionnaire. The questionnaire was deployed using the commercial online platform Limesurvey Professional, running version 3.0. The qualitative phase involved a small number of participants in FGDs, and was carried out as further verification in support of the telephone validation process that had already been carried out, and is aimed at ensuring the reliability and coherence of the fieldwork survey. Participants for the FGDs were reached using the same methods as those for the online survey. Participants in the FGD may or may not have participated in answering the online questionnaire.

A-3. Sample Profile

The profile of the sample is summarised by the following tables. Table 2.1 gives the gender breakdown, Table 2.2 shows the composition by race, Table 2.3 shows the composition by type of dwelling, Table 2.4 shows the composition by religion, while Table 2.5 shows the composition by education pathway.

Table 2.1. Gender composition

	Unweighted	Weighted
Female	51.33%	48.71%
Male	48.67%	51.29%

Table 2.2. Race composition

	Unweighted	Weighted
Chinese	81.16%	68.49%
Malay	10.61%	17.91%
Indian	5.40%	9.98%
Others	2.84%	3.61%

Table 2.3. Type of dwelling

	Unweighted	Weighted
1-3 Room HDB	12.61%	13.24%
4-Room HDB	31.75%	32.30%
5-Room HDB	32.04%	32.73%
Larger HDB and Private Properties	23.60%	21.73%

Table 2.4. Religion

	Unweighted	Weighted
No religion	29.2%	25.2%
Catholic	5.1%	5.4%
Christian	17.3%	15.3%
Buddhist	28.0%	23.7%
Taoist	3.7%	3.1%
Muslim	13.4%	22.1%
Hindu	2.3%	4.2%
Sikh	0.5%	0.7%
Other	0.6%	0.6%

Table 2.5. Education pathway

	Unweighted	Weighted
JC/IP/IB	28.6%	26.2%
Polytechnic	61.7%	61.1%
NITEC	8.1%	11.0%
Other	1.7%	1.6%

The JC/IP/IB pathway also includes those from NUS High, and comprises mainly respondents who have gone through GCE 'A' levels. The polytechnic pathway are those who do not belong to the JC/IP/IB pathway and are therefore currently studying at one of the six local polytechnics. The NITEC pathway comprises those who do not belong to the previous two categories and have studied, or are studying, for NITEC or Higher NITEC qualifications. There are some who do not belong in any of the above three categories, and these have been classified under 'Other.'

For all estimated proportions reported in this study derived using the full sample of 1,056 observations, the maximum margin of error is ± 3 percentage points. For cases such as Figure 2.14, where only a subset of the sample is applicable, the margin of error is higher.

APPENDIX B

B-1. Questionnaire Design

The questionnaire comprised 107 questions, organised in 5 sections as follows:

- Background (15 questions)
- Education and Employment (19 questions)
- Consumption of Media (44 questions)
- Personal Beliefs & Principles (20 questions)
- Local and Global Issues (9 questions)

The actual number of questions a respondent is required to answer could be fewer, with the later questions depending on the route a respondent takes as a result of his/her responses or choices in preceding questions.