The Attractiveness and Pursuit of Digital Careers for Girls in Malta

Survey of Perceptions among Students and Educators

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A survey prepared for The eSkills Malta Foundation by Ascend Consulting

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Introduction

This survey of perceptions among secondary school students and educators on the attractiveness and pursuit of digital careers by girls in Malta has been undertaken as part of the 'Women in Digital Initiative' of eSkills Malta Foundation and with their financial support.

The survey is also a follow-up to the 2020 'Analysis of the Gender Gap in the Digital Sector in Malta' and its recommendations. Most relevant was its finding that an outdated Maltese culture and stereotypes, including in the education system, are the main reasons for the wide gender gap identified in the Digital Sector, especially in the more technical positions. Women were found to fill only one in every five digital jobs in ICT Intensive organisations (e.g. ICT sector per se, iGaming, Video Games, and MITA). Even when considering the overall range of jobs in such organisations (e.g. including administration, support, marketing and sales), women were found to represent just one in every three employees. The gender gap in digital jobs emerges to be even wider among organisations that make more regular, less intensive use of ICT.
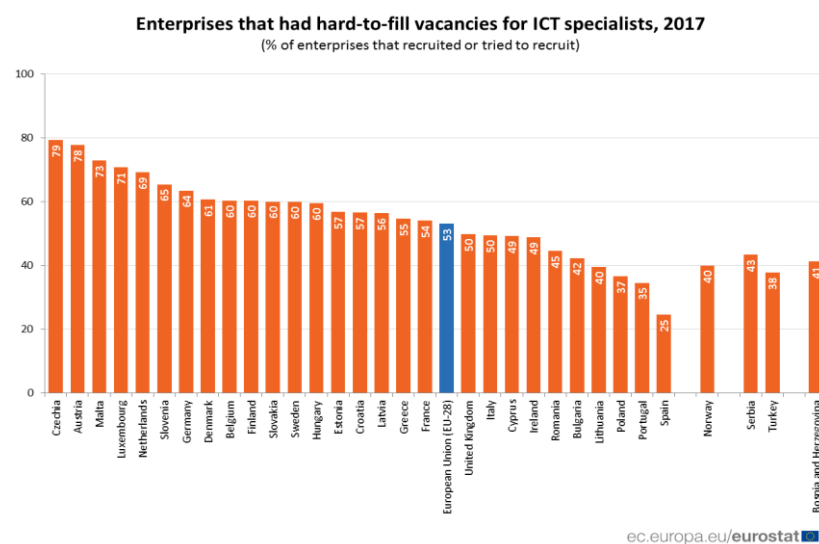

Against this background and vast perception among the employers and employees surveyed for the 2020 study, this 2021 survey focused on assessing perceptions of secondary school girls and educators regarding the attractiveness and pursuit of digital careers by girls in Malta.

Why is this survey important?

According to European Commission studies, the demand for ICT professionals has been growing by 4% annually over the past years, with the COVID-19 pandemic further accelerating the growth in demand. This demand is further reflected by the European Digital SMEs Alliance, which recently reported a deficit of 1,000,000 ICT professionals and 150,000 eLeaders in the EU in 2020.

In Malta, a 21.9% employment growth in the ICT sector was forecasted by CEDEFOP for the period 2020-2030. This is more than double the average growth rate of 8.9% forecasted across EU27. On the supply side, the 'ICT Skills Demand and Supply Monitor 2021' recently published by the eSkills Malta Foundation unequivocally states that the current Maltese ICT student pipeline will not be sufficient to meet the forecasted growth in demand for ICT professionals. According to Eurostat, in 2017 an average of 53% of EU enterprises had hard-to-fill vacancies for ICT specialists, with the Maltese enterprises being even worse affected (73%).

Enterprises that had hard-to-fill vacancies for ICT specialists, 2017
(% of enterprises that recruited or tried to recruit)

ec.europa.eu/eurostat

Women: Untapped resources in the Digital Sector

The European Commission's 'Women in Digital (WID) Scoreboard 2020' ranks Malta in the 17th place, below the EU average, confirming that Malta is affected by a gender imbalance and its respective consequences even more than most other EU member states. The percentage of women amongst ICT specialists in Malta is only 10.7%, almost half of the average proportion of female ICT specialists in EU (17.7%). The '2021 Global Gender Gap Report' indicates that only 2.31% of the female graduates in Malta hold an ICT degree,

compared to 14.76% of the male graduates. This percentage is also lower than the global average of 3% and the European one of 2.9%[1].

The criticality of the situation is further confirmed by a <u>2017 study undertaken by Microsoft</u> across over 11,500 secondary school girls in 12 European countries. This showed that there is a significant decline in the interest of girls in ICT and STEM studies between the ages of 11/12 and 15/16 years old. Furthermore, a 2019 OECD study on "The role of education and skills in bridging the digital gender divide" found that on average, at the age of 15, less than 0.5% of girls would like to be working in the ICT sector, compared to 5% of the boys.

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[1] 2017 UNESCO global survey entitled Girls' and women's education in science, technology, engineering and mathematics (STEM)

The Survey Methodology

In order to find ways to address the significant talent crunch and female deficit that Malta's Digital Sector is facing, we embarked on a survey to understand the potential pipeline available for the years ahead, as well as possible root causes for the current gender gap.

To this end, two separate questionnaires have been prepared, one addressed to girl students, and another questionnaire to educators. Specifically, teachers of ICT related subjects and Personal & Social Development (PSD) or career guidance counsellors.

The links to these questionnaires were widely circulated through various channels, including direct emails, social media posts addressed to both teachers and parents, as well as with eSkills Malta Foundation, the Ministry for Education and other multiplier support (e.g. Business and Professional Women, Malta Girl Guides). These were also directly distributed to Headmasters and Headmistresses of many Secondary Schools in Malta, who were asked to distribute them to the teachers of ICT related studies and career guidance in the schools, to be filled in by themselves and by their girl students. Both girls-only and co-ed secondary schools were targeted.

The questionnaires were available to be completed from the 6th to the 31st of October 2021. To encourage as many respondents as possible, they were completely anonymous, with no personal identifier data of the respondents having been collected and processed as part of these surveys. The aim was to gauge the extent of and any shifts in interest in pursuing ICT studies and digital careers among girls along their secondary school years, as well as factors potentially affecting such interest. Perceptions of educators were also deemed important and hence were also explored.

The questionnaires included both demographic and topic specific questions, while the majority of the questions were mirrored in both questionnaires so as to enable comparison between the two surveyed groups. Please see Appendix for more details about the specific questions included in each of the two questionnaires.

The extent of responses received was very encouraging and representative for the size of Malta, with complete questionnaire responses provided by 450 girls and 22 teachers in secondary schools. A few additional respondents chose not to answer some of the questions.

The questionnaire-based surveys were then complemented by a validation workshop with educators. This was held online on the 30th November 2021. The results and key insights of the survey were presented and discussed, so as to better interpret them, as well as to seek possible ways to address any challenging findings.

This workshop was considered to be an essential part of the entire survey process because it gave valuable feedback from and to people who are directly involved in education, including at policy-making and educators formation levels. Among others, there were present representatives from the Ministry of Education, Faculty of Education, Faculty of ICT and Centre for Labour Studies of the University of Malta, Tech.mt, eSkills Malta Foundation, Maltese secondary schools, as well as from the European Commission, DG GROW.

The Girl Students Survey

Aim

The aim of this survey was to gauge the extent of and any shifts in interest in pursuing ICT studies and digital careers among girls along their secondary school years, as well as factors potentially affecting such interest.

Respondent demographics

A total of 457 responses were received from girl students aged 11 years to 16 years old. The number of responses was generally uniform throughout secondary school years. The low number of respondents in the 16 years old age bracket is actually representative of students in this age bracket typically having already completed secondary school level. It is also to be noted the large proportion (83%) of respondents coming from girls-only schools.
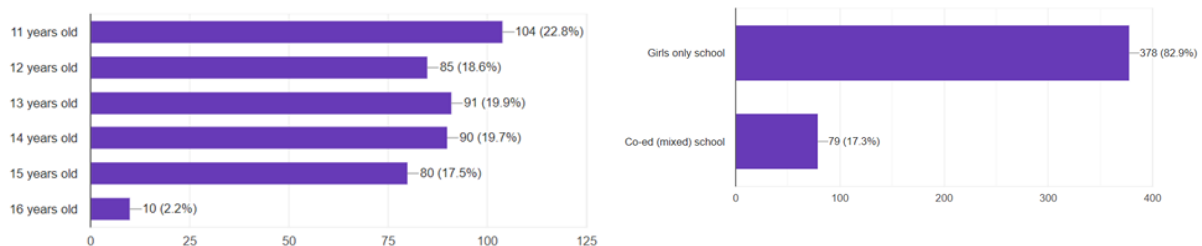
Key insights from the survey among girl students

Whilst the outcome of the girls' responses to each of the survey questions is presented in detail in the Appendix, the overall key findings from the Girl Students Survey are:

- Only 28% of girls are attracted by a career in ICT or in the Digital Sector, while another 36% are not sure.
- Although 61% of the girls are already taking ICT related subjects, only 23% of girl students are interested in further pursuing ICT studies. Another 29% are not sure, while almost 48% are not interested.
- Over 68% of girl students think that to pursue Digital Sector careers they need to have ICT related studies, while another 20% do not know. Only 10% are aware of the difference.
- Only 46% of girl students know about women who work in ICT or Digital Sector jobs.
- 37% of girl students are not always engaged and encouraged by their teachers in ICT related studies and/or Digital Sector careers.
- 51% of girl students do not always get encouraged by their guidance counsellors to consider ICT related studies and Digital Sector careers.
- 52% of girl students do not get encouraged by their parents to consider ICT related studies and/or Digital Sector careers.
- 82% of girl students believe that they are aware of the different types of jobs and roles that are available in ICT and the Digital Sector. However, 17% still do not know.
- Only 18% of girl students are not aware of real-life ICT application in areas traditionally of interest to girls (e.g. health, education, social care, environment protection).
- 92% of girls believe in their ICT abilities when compared to boy students.
- Only 21% of girl students believe that women are disadvantaged in ICT and/ or Digital Sector career opportunities.
- Over 56% of girl students plan to take on other STEM studies, while another 27% are not sure.

The Educators Survey

Aim

The specific target group for this survey were teachers of ICT related subjects and PSD/career guidance teachers and counsellors in both girls-only and co-ed secondary schools in Malta. The aim was to explore the educators' attitudes and perceptions of their secondary school girls' abilities and interest to pursue ICT related studies and digital careers, as well as of their own preparedness to teach and guide them in this sense.

Respondent demographics

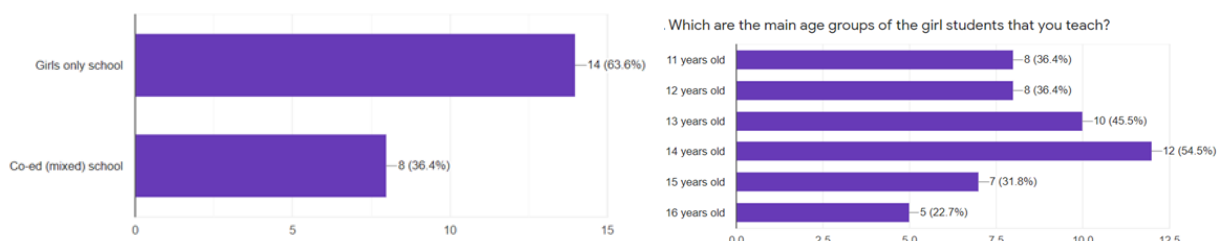A total of 23 educators filled-in the survey, 64% of whom came from girls-only schools. The vast majority of respondents were female, with only 9% of replies coming from male teachers. Most educators that replied teach 13 and 14 year old girl students.

Key insights from the survey among educators

Whilst the outcome of the educators' responses to each of the survey questions is presented in detail in the Appendix, the overall key findings from the Educators Survey are:

- The main perception among teachers (77%) is that only some 10% to 20% of girls are attracted to ICT and Digital Sector careers. Slightly more teachers (41%) estimate such interest at only 10%, than the teachers (36%) that estimate some 20% of girls interested.

- Majority of teachers (55%) think that around 20% of girls (1 in 5) are interested in ICT studies. A significant segment of teachers (27%) have a more pessimistic view that only around 10% of girls (1 in 10) are interested in such studies, whilst just 18% of teachers take a more optimistic view that around 33% of girls (1 in 3) are interested in ICT studies.

- Over 77% of teachers believe that ICT studies are needed to pursue a career in the Digital Sector, almost half of whom (41%) being highly convinced of this.

- 82% of teachers think their girl students are aware of the different types of jobs and roles available in ICT and the Digital Sector.

- Just 50% of teachers said that their girl students know of women working in ICT or the Digital Sector.

- Only 18% of teachers do not provide examples of real life application of ICT/digital technologies in areas traditionally of interest to girls (e.g. health, education, social care, environment protection).

- 95% of teachers believe that girls can be as good as boys in ICT subjects.

- All teachers think they need further information and professional training to prepare girl students for ICT and Digital Sector jobs - mainly regarding how to make ICT studies more appealing, the various areas of real life application of ICT/digital technologies, and the skills and competencies needed for ICT or Digital Sector jobs.

- 63% of teachers see a trend of increasing abilities in ICT subjects among girl students.

- 59% of teacher see a trend of increasing interest in ICT studies and Digital Sector careers among girl students. However, none of them fully agrees with this. On the other hand, the other 41% do not see such a trend.

- Regarding the girls interest in other STEM studies, 41% of teachers estimate this to apply to around 20% of girl students (1 in 5). Another 18% of teachers are more optimistic, thinking that around 33% girls students (1 in 3) are interested, whilst another 18% estimate such interest even higher - in 50% of the girls.

Analysis of the Results and Key Insights

By corroborating the outcome of responses to different questions, and to the questions mirrored in the girls and educators surveys, a number of key points emerged as requiring more in-depth consideration. These point have been further discussed in the 30th November 2021 validation webinar with educators, with additional insights emerging as summarised hereafter.

1. Girls' interest in careers in ICT or Digital Sector

Regarding their girl students, 41% of teachers estimate that interest stands at only 10%, while another 36% of teachers estimate that this figure is 20%. However, 28% of girl students say that they are interested in such careers, while 33% are not sure.

This indicates that teachers may be underestimating the interest of girl students in ICT and Digital Sector careers, especially as teachers tend to look at past data to form their opinions, thus capturing the trend only later, whilst the girls would be expressing their current thoughts, possibly not yet fully formed and shared with the educators. However, it should be also kept in mind that teachers would have reflected their perception of such interest across their entire cohort of students, and thus their perception would probably be more representative of the entire population of girl students. Voluntary sample surveys are known to be affected by some positive bias, with individuals typically interested in a topic being more willing to respond than those that are not interested. Thus, the outcome of the girls' responses based on a voluntary sample, could be more positive than that from a census of the entire population of secondary girl students.

Therefore, whilst the overall survey showed that somewhere between 10% and 28% of secondary school girls are attracted to ICT and Digital Sector careers, there is higher probability that such interest is rather towards the lower than the higher end of the indicated range. Nevertheless, this analysis also gives further credence to a trend of increasing interest in ICT studies and Digital Sector careers among girl students, as perceived by 59% of teachers.

2. Perception that pursuing a career in the Digital Sector requires one to have ICT studies

Whilst the vast majority (82%) of both educators and girl students are confident that they are well aware of the different types of jobs and roles available in ICT and the Digital Sector, over 68% of girl students think that they need to have ICT related studies in order to be able to pursue Digital Sector careers, whilst another 20% do not know. Similarly, over 77% of teachers believe that ICT studies are needed for a career in the Digital Sector, almost half of them being highly convinced of this.

The very high correlation between how the students and educators see these aspects may be indicative of how strongly teachers shape their students' understanding of these. At the same time, comparing the responses to the two separate, but logically linked questions, indicates some contradiction. The strong belief in the need to have ICT studies to be able to have a career in the Digital Sector, seems indicative of insufficient awareness of the wide range of jobs and roles in this sector, many of them not requiring ICT studies (e.g. business requirements and data analysis, marketing and sales, customer care, management and administration related). The difference between ICT/digital jobs per se, and other jobs and roles in the Digital Sector, as well as the specific type of skills and competences needed for these (e.g. deep, advanced ICT skills vs. core, base digital competences) does not emerge as being clearly understood, neither by the girl students nor by the educators themselves. Similarly, there seems to be limited awareness of the difference between the ICT sector per se - that develops, provides and manages Information and Communication Technologies, products, services and solutions transversally, across all other sectors of the economy, and the wider Digital Sector that emerges at these intersections. Examples of the latter include today's sectors such as EdTech, MedTech, BioTech, FinTech, LegalTech, AgriTech, and SportTech. Although strongly enabled by ICT/digital technologies, the range of studies needed to pursue careers in these sectors is clearly very wide, and does not necessarily require ICT studies, at least not in depth ones.

Besides the above, the strong belief amongst the girls that they need ICT studies to pursue Digital Sector careers may also be indicative of some confidence issues, with the girls not

feeling as confident in their ability to pursue careers in this sector unless they have in-depth knowledge (hence studies) in ICT.

3. Girls' interest in ICT related studies

Although 61% of girls already study ICT subjects, only 23% of girls are interested in further pursuing ICT related studies. Moreover, 55% of teachers estimate that 20% of girl students are interested in ICT studies, whilst another 27% think that this figure stands at 10%.

These results show that girls' interest in pursuing ICT related studies cannot be considered to be high. Based on the same rationale discussed under point 1. above, although it might seem that somehow teachers have a more pessimistic view, this might be due to their wider perspective, across the entire cohort of girl students they teach. Due to the nature of this survey, based on responses from a voluntary sample of the target group, it is probable that a number of girl students who are not interested in ICT related studies would not have completed the survey. In this case, therefore, it would be prudent to rely more on the replies of the educators than those of the students. Nevertheless, given the typically past-informed perspective of the educators, versus the girls' perspective better anchored in their present thoughts, the survey results also indicate a trend of increasing interest in ICT related studies among the girls. This is also backed up by the majority of the teachers (63%) noting a trend of increasing abilities in ICT subjects among girl students, besides the earlier mentioned trend of increasing interest in ICT studies among them.

4. Girls' interest in ICT studies by age and school type

An analysis of the girls' expressed interest in pursuing ICT studies along the different age groups covered by the survey shows a constant decrease in interest as the girls advance in age. At 11 years old, there are more girls interested in ICT (32%), but also many undecided (46%). Among 15 year old girls, only 16% are interested and 15% still undecided. By 16, no girls express interest in further ICT studies.

Undertaking the same differentiated analysis of interest in ICT studies across the two types of schooling system (i.e. co-ed vs. girls-only), it emerges that more co-ed girls (32%) are interested to take further ICT studies than those in girls-only schools (22%). The level of undecided girls in co-ed schools (45%) is almost double that in girls-only schools (26%), resulting in drastically less co-ed girls that do not plan to take further ICT studies.

I plan to take on (or further take on) ICT related studies - %					
	Fully Agree	**Tend to Agree**	**Undecided**	**Tend to Disagree**	**Fully Disagree**
11 years	14	18	46	15	6
12 years	10	15	30	20	25
13 years	9	16	23	23	29
14 years	8	11	25	24	33
15 years	3	13	15	26	44
16 years *	0	0	40	20	40

I plan to take on (or further take on) ICT related studies - %					
	Fully Agree	**Tend to Agree**	**Undecided**	**Tend to Disagree**	**Fully Disagree**
Girls Only	8	14	26	23	30
Co-Ed	13	19	45	12	12

These results may indicate that whereas initially, at 11-12 years of age, girls' interest in ICT subjects is encouraging, a number of factors are contributing to a reduction in interest along the years. It would be interesting to further investigate and discover what is contributing to this situation. Equally interesting is the difference between girls-only schools and co-ed schools, and why such a difference exists.

5. Trends in interest and abilities in ICT and Digital Studies

Although 63% of teachers see a trend of increasing abilities in ICT related subjects among girl students, only 59% of teachers note also a trend of increasing interest in ICT studies and Digital Sector careers among them, and none of them fully agrees with this. On the other hand, a significant 41% of teachers do not see such a trend.

Therefore, the perceived increase in interest in ICT studies and Digital Sector careers emerges as being more subdued and lagging behind its potential based on the more clear increase in the girls' abilities in ICT subjects. Moreover, given that a substantial amount of teachers do

not see an increasing trend of interest, it may be pertinent to establish the actual trend by assessing the number of students choosing these subjects over the years. It would be also relevant to discover why so many teachers do not perceive such a trend.

6. Girl students planning to take other STEM studies

Looking further to assess how the girls' interest in ICT studies fares compared to a wider interest in Science, Technology, Engineering and Maths (STEM), the survey showed that a significantly higher proportion of girl students (56%) are interested in and plan to take other STEM studies. Another 27% are still not sure. On the other hand, only 13% of teachers estimate that over 50% of girl students are interested in STEM.

Notwithstanding the earlier presented rationale for putting more confidence into the educators' vs the girls' emerging perceptions, the significant discrepancy in the above results indicate that teachers may indeed not be sufficiently aware of the interest of girls in STEM. This quite high interest in adjacent and complementary subjects to ICT also shows that ways to further stimulate interest in ICT could be found. Such an example includes through further development and promotion of studies at the confluence of ICT and other sciences more of interest to the girls such as Digital Health studies recently introduced by the Faculty of ICT at University of Malta. As reported during the 30th November validation workshop with educators, such a new programme registered a significantly higher enrolment of girls than any other programme of the ICT Faculty.

A comparison by age group of the girls' interest in STEM shows a similarly decreasing interest along the secondary school period. The majority of girls intends to take STEM studies when they are 11 years old, but this drops the next year, and then drops further at 15 years old.

Comparing the interest in STEM across the school type, it emerges that there are minor differences, although more co-ed girls are still undecided, and thus much less than those in girls-only schools set not to pursue STEM any further.

I plan to take on other Science, Technology, Engineering or Math (STEM) studies - %					
	Fully Agree	**Tend to Agree**	**Undecided**	**Tend to Disagree**	**Fully Disagree**
11 years	27	28	41	2	2
12 years	40	24	27	4	5
13 years	31	31	24	7	8
14 years	24	30	25	13	9
15 years	31	21	13	16	19
16 years *	20	10	20	10	40

I plan to take on other Science, Technology, Engineering or Math (STEM) studies - %					
	Fully Agree	**Tend to Agree**	**Undecided**	**Tend to Disagree**	**Fully Disagree**
Girls Only	31	26	25	9	9
Co-Ed	27	27	35	3	8

7. Knowledge of role models

Just 50% of teachers think that their girl students know of women working in ICT & Digital Sector jobs, much in line with the response of the girl students – only 46% of whom having said that they know about women who work in ICT or Digital Sector.

This shows that teachers know quite well of the limited awareness of role models among girl students and that more effort is needed to improve such a situation.

8. Main influencers and their attitudes

37% of girl students say their teachers are not always engaging them in ICT related studies and encouraging them towards Digital Sector careers. 51% of girl students do not always get encouraged by their guidance counsellor to consider ICT subjects and Digital Sector careers. Finally, 52% of girl students do not get encouraged by their parents to consider ICT subjects and/or Digital Sector careers.

The above results expose very clearly what could be one of the main reasons for the current situation. Ways need to therefore be identified to get teachers, and particularly career counsellors and parents to be more encouraging of girls considering and pursuing Digital Sector careers.

Other relevant issues raised in the Validation Workshop

- The results of this survey show consistency when compared to similar studies carried out in other European countries. These results are not much different than those of the above mentioned Microsoft study undertaken in 2017 study undertaken in Europe, but not covering Malta. However, Malta's ICT sector demand for labour across the period 2020-2030 is forecasted by CEDEFOP to grow by 21.9%. This is more than double the average growth rate of 8.9% forecasted across the EU27. Therefore, Malta will need a pipeline of workforce for the ICT sector double the size of that needed in average across the EU.

- It could be that the industry is also contributing to the problems that have been exposed. However, it is not clear how this is the case, but may be due to recruitment processes and operational practices. Nevertheless, it is encouraging to note that only 21% of girl students believe that women are disadvantaged in ICT and/ or Digital Sector career opportunities.

- Whereas state schools have not responded to this survey to the same level as other schools (as reflected by the proportion of respondents from co-ed schools), they do have a lot of career guidance initiatives with respect to the ICT and Digital Sector. This may be one of the reasons why there is more interest in such studies in these schools. Another reason could be the mixed gender nature and the positive influence that studying together with boys, traditionally more interested in ICT, may have on the girls.

- The linkage between ICT and STEM subjects and studies has not been sufficiently strong and clear as yet. So much so that it is only in the last year that changes to the categorisation of subjects for MATSEC have been made, with ICT being now placed in the same category with STEM.

- Transversal competences, problem-solving skills, including computational skills are needed as a basis for learning. More effort is needed by the education system to introduce and develop such skills from an early age.

Recommendations

Based on the analysis of the responses to the various questions in the surveys, including through and based on the feedback received during the validation workshop with educators, the following key recommendations emerge.

➤ Initiate an awareness raising campaign focused on the high and ever increasing importance of ICT related professions, as well as the diversity of jobs and roles available in ICT and the wider Digital Sector. The exact meaning of what constitutes these sectors, the differences and interfaces between them need to be clarified. Similarly, more clear understanding is needed on the definition of ICT studies, on the various levels of such studies, as well as the difference between applied and core ICT skills.

➤ Embark on such a campaign targeting both girls and their influencers (i.e. the educators, career guidance counsellors and the parents).

➤ Increase awareness of women role models among the girls by having women working in ICT and the Digital Sector more actively involved with the girls, in schools, rather than only in the media.

➤ Carry out further surveys, including by combining questionnaires with focus group discussions with the girls, so as to understand why most girl students do not wish to further pursue ICT related studies, what should be done to increase such interest, and how can teachers take a more active role in stimulating girls' interest.

➤ Undertake such surveys on an annual basis and with an even wider application of the questionnaire, across the entire population of secondary school girls in Malta, so as to better assess the overall situation and identify trends.

➤ Organise a series of workshops between education stakeholders from both girl schools and co-ed schools to investigate the emerging differences and serve as a co-learning and sharing experience. Train-the-trainer sessions could also be organised as part of these workshops.

➤ Clarify and promote the strong linkage between STEM and ICT subjects, explaining how digital technologies enable and improve work in many other areas, such as HealthTech, BioTech, EduTech, FinTech, LegalTech, GreenTech, AgriTech, and SportsTech. This could entice more girls who are interested in other STEM studies to

also take on ICT studies or at least see themselves working in Digital Sector segments that intersect their sector of interest.
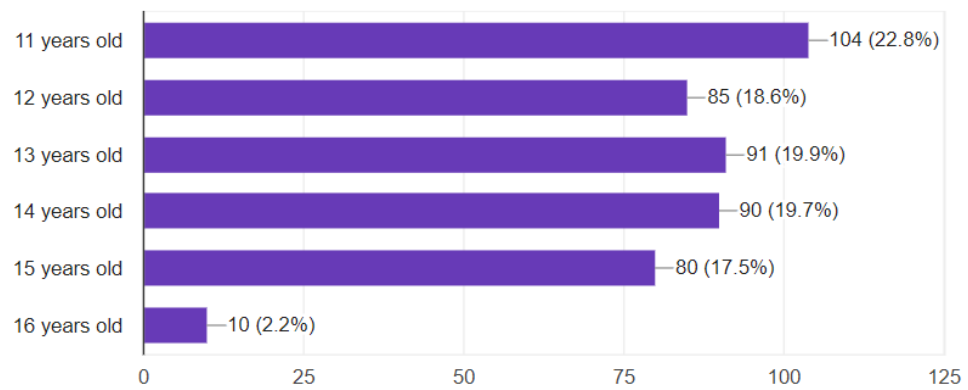
➤ Organise Continuous Professional Development training sessions for educators in conjunction with the University of Malta, the Malta College for Arts, Science and Technology and the main employers in the ICT and Digital Sector. Such trainings and information sessions would be needed so as to guide them on how to make ICT studies more appealing, better inform them of the various areas of real life application of ICT/digital technologies, and the various skills and competencies needed for ICT or Digital Sector jobs. It is very important that educators be equipped with the ability to embrace and anticipate change, so that they could then equip their students with the skills and competences needed for the future. We don't know enough of what this future is yet but we do know that it is fast evolving, and would surely involve humans shaping-up ever more pervasive digital technologies and working hand-in-hand with artificial intelligence.
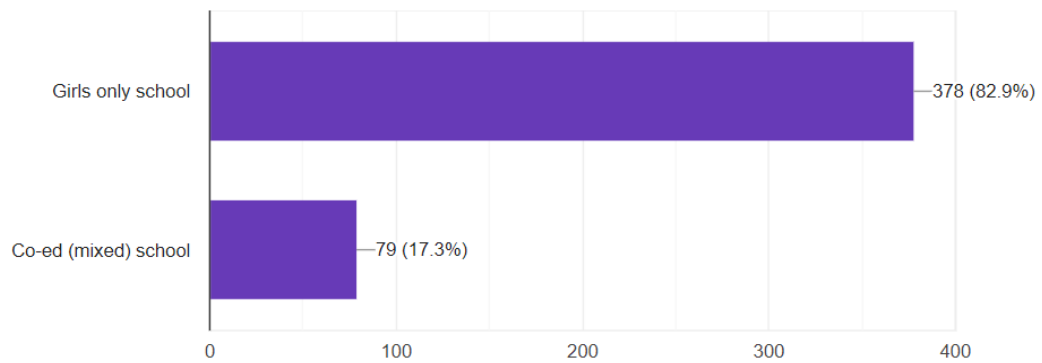
Appendix

Girl Student Survey Questions and Results

What is your age?
457 responses

Age	Count
11 years old	104 (22.8%)
12 years old	85 (18.6%)
13 years old	91 (19.9%)
14 years old	90 (19.7%)
15 years old	80 (17.5%)
16 years old	10 (2.2%)

2. What type of school are you studying at?
456 responses

School type	Count
Girls only school	378 (82.9%)
Co-ed (mixed) school	79 (17.3%)

3. I am aware of different types of jobs and roles that are available in ICT and in the Digital Sector.
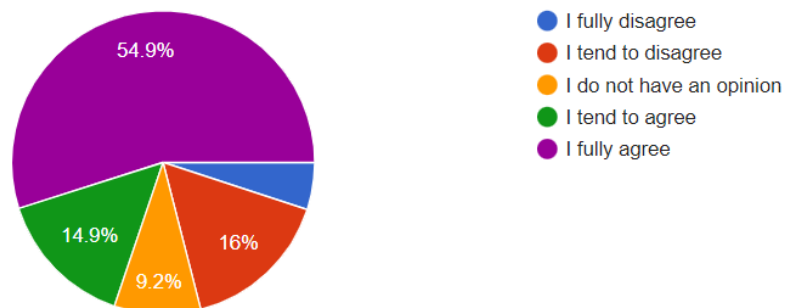
455 responses

- I fully disagree
- I tend to disagree
- I tend to agree
- I fully agree

32.3%
11.6%
50.5%
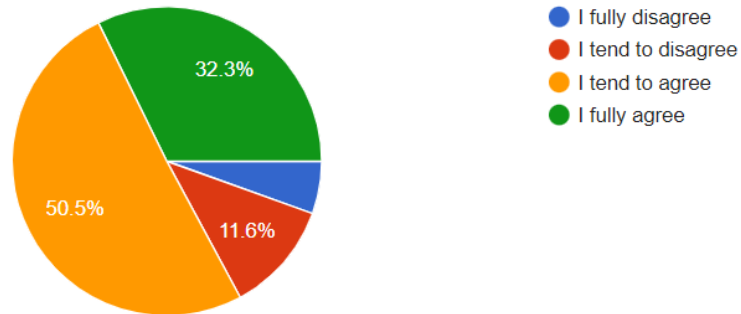
4. I know of some women who work in ICT and/or the Digital Sector.
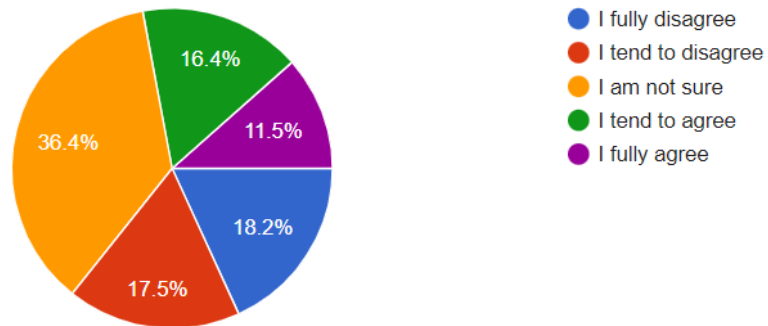
454 responses

- Yes
- No

54%
46%
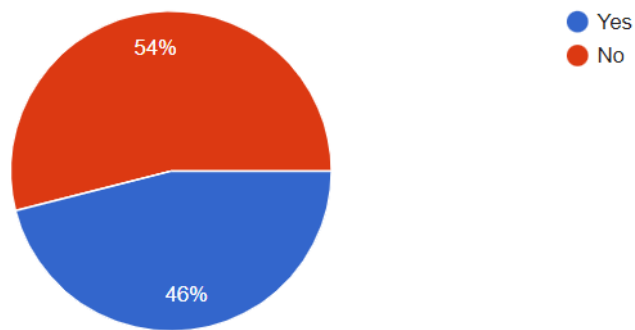
5. I believe that women and men have the same career opportunities in ICT and the Digital Sector.
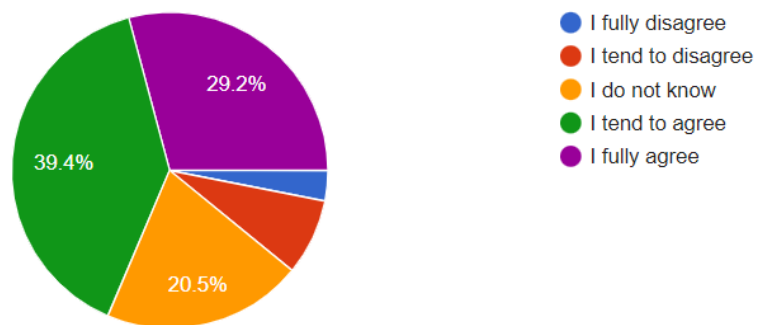
457 responses

- I fully disagree
- I tend to disagree
- I do not have an opinion
- I tend to agree
- I fully agree

54.9%
16%
14.9%
9.2%

6. I find a career in ICT and/or the Digital Sector to be appealing to me.

451 responses

- ● I fully disagree
- ● I tend to disagree
- ● I am not sure
- ● I tend to agree
- ● I fully agree

16.4%
11.5%
36.4%
18.2%
17.5%
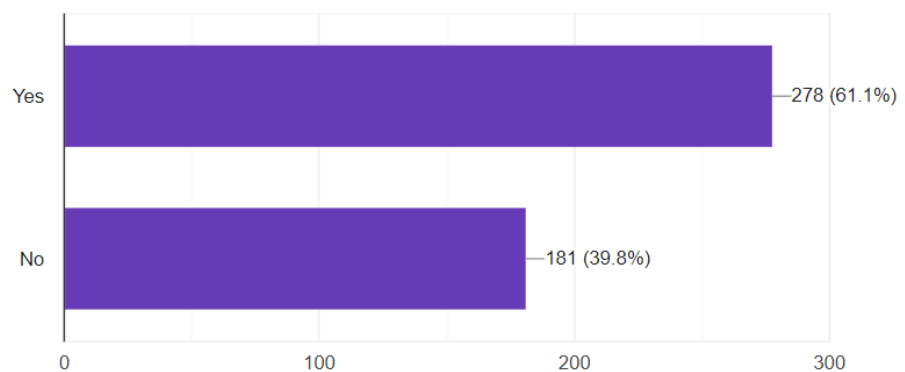
7. I believe that I need to have ICT related studies to be able to pursue a career in the Digital Sector.
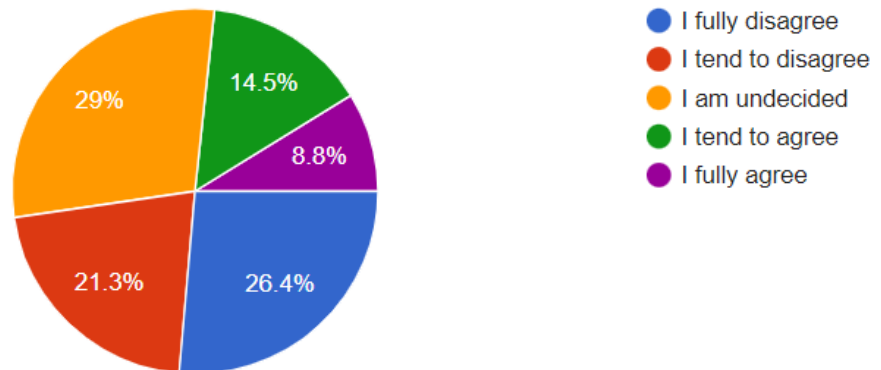
449 responses

- ● I fully disagree
- ● I tend to disagree
- ● I do not know
- ● I tend to agree
- ● I fully agree

29.2%
39.4%
20.5%

8. I am studying ICT related subjects.

455 responses

Yes — 278 (61.1%)

No — 181 (39.8%)

9. I plan to take on (or further take on) ICT related studies.

455 responses

- I fully disagree
- I tend to disagree
- I am undecided
- I tend to agree
- I fully agree

14.5%
8.8%
29%
21.3%
26.4%

10. I plan to take on other Science, Technology, Engineering or Math (STEM) studies.

453 responses

- I fully disagree
- I tend to disagree
- I am undecided
- I tend to agree
- I fully agree

30.2%
26.5%
8.8%
26.7%
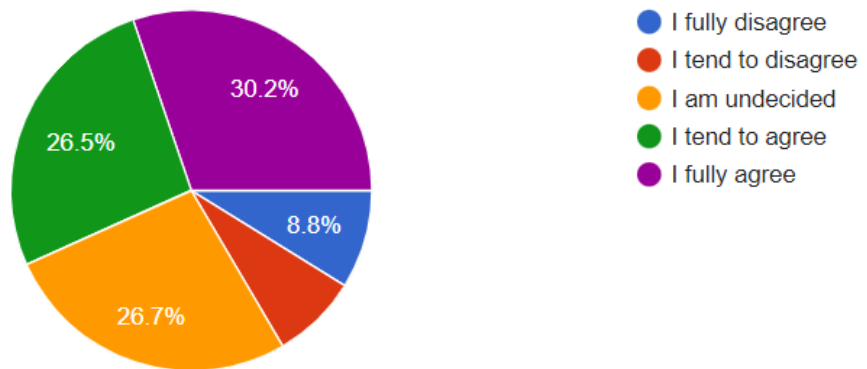
11. I believe that I will never be as good as boys in ICT related studies.

456 responses

- I fully disagree
- I tend to disagree
- I tend to agree
- I fully agree

19.7%
72.4%
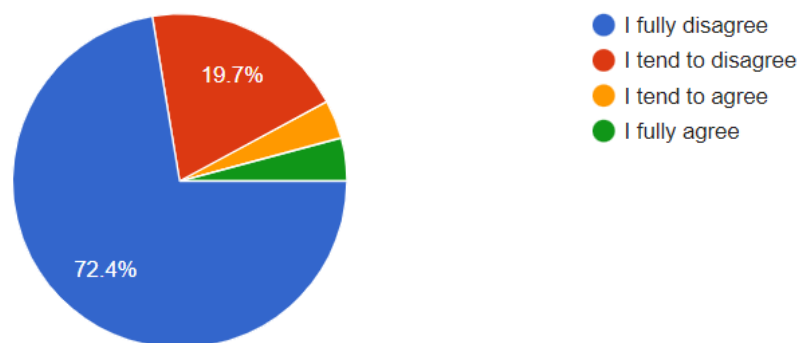
12. My career guidance counsellors always encourage me to consider ICT related studies and/or Digital Sector careers.
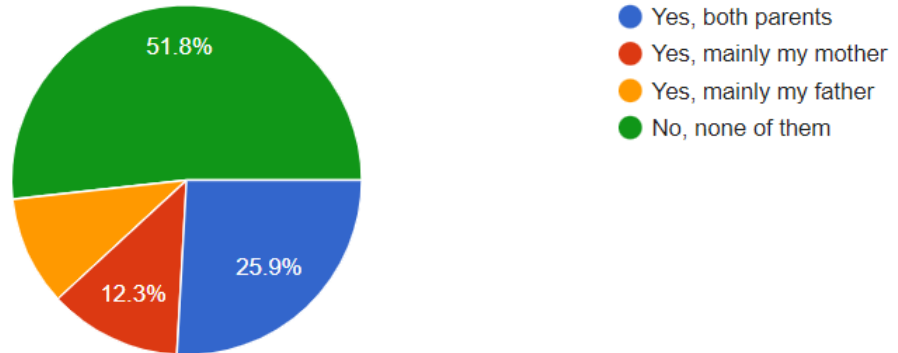
450 responses

- I fully disagree
- I tend to disagree
- I tend to agree
- I fully agree

37.3%
11.3%
17.3%
34%
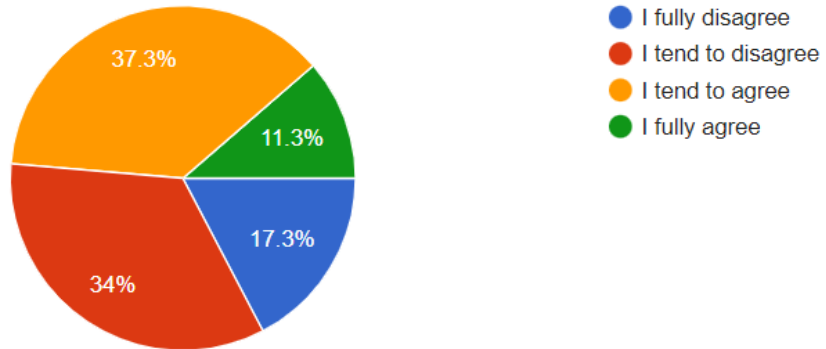
13. My teachers always engage and encourage me in ICT related studies and/or Digital Sector careers.

451 responses

- I fully disagree
- I tend to disagree
- I tend to agree
- I fully agree

44.6%
18.2%
9.5%
27.7%
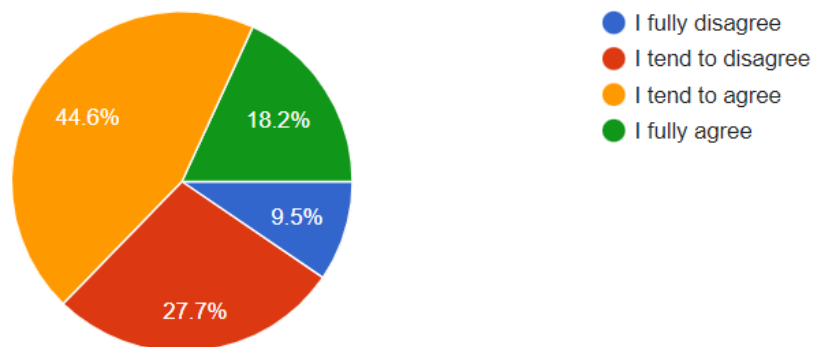
14. My parents talk to me about and encourage me to pursue ICT related studies and/or a career in the Digital Sector.

456 responses

Legend:
- Yes, both parents
- Yes, mainly my mother
- Yes, mainly my father
- No, none of them

51.8%
25.9%
12.3%

15. I am aware of real-life application of ICT subjects and digital technologies in areas traditionally of interest to girls (e.g. health, education, social care, and environment).
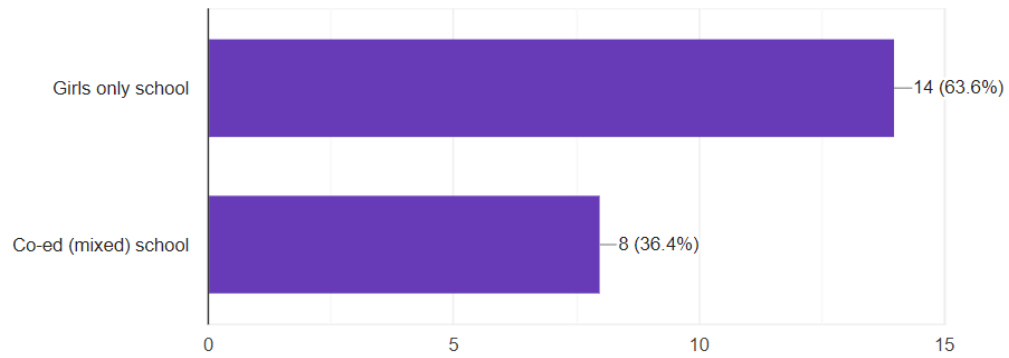
452 responses

Legend:
- I fully disagree
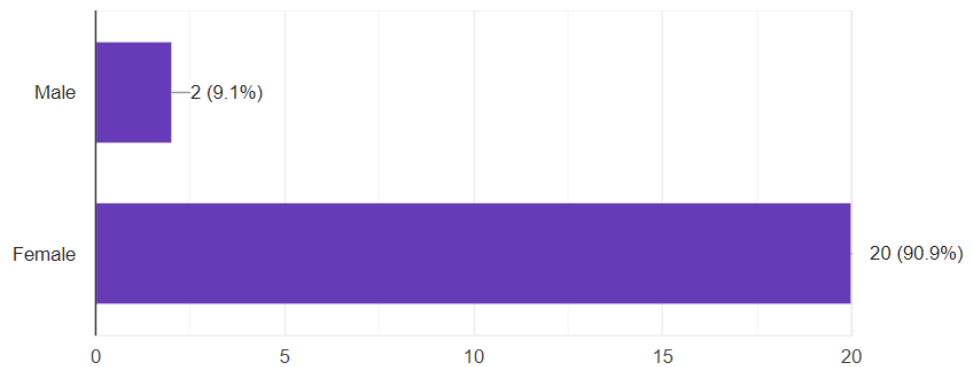- I tend to disagree
- I tend to agree
- I fully agree

33.2%
48.7%
12.6%
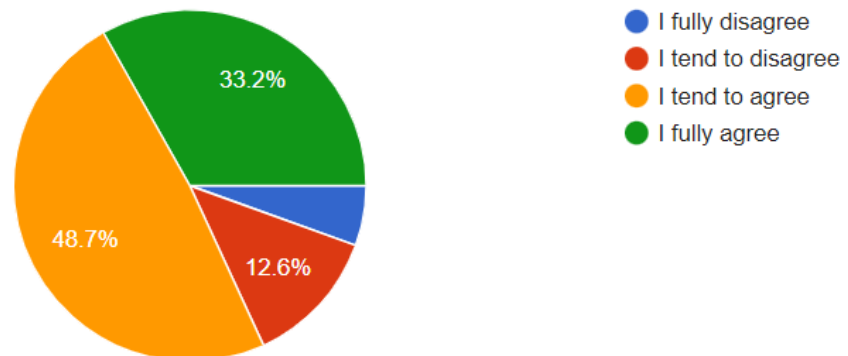
Educators Survey Questions and Results

1. What type of school are you teaching in?
22 responses

Girls only school	14 (63.6%)
Co-ed (mixed) school	8 (36.4%)

Axis: 0, 5, 10, 15

2. What is your gender?
22 responses

Male	2 (9.1%)
Female	20 (90.9%)

Axis: 0, 5, 10, 15, 20

3. Which are the main age groups of the girl students that you teach?
22 responses
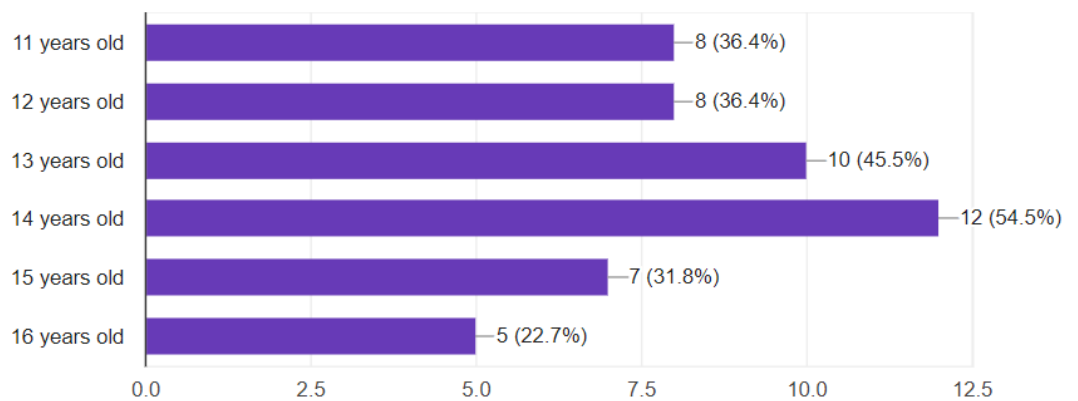
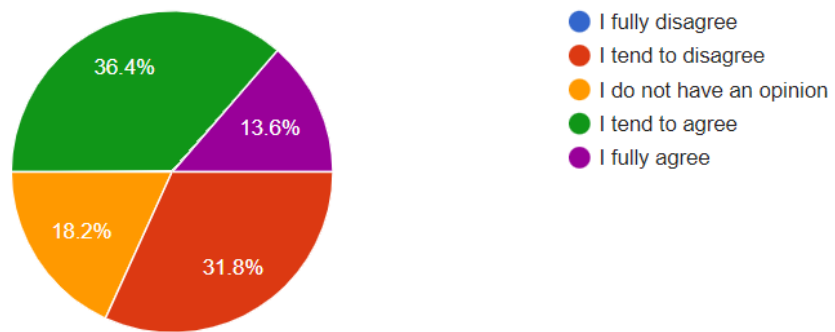|	
11 years old	8 (36.4%)
12 years old	8 (36.4%)
13 years old	10 (45.5%)
14 years old	12 (54.5%)
15 years old	7 (31.8%)
16 years old	5 (22.7%)

Axis: 0.0, 2.5, 5.0, 7.5, 10.0, 12.5

4. My girl students are aware of the different types of jobs and roles that are available in ICT and in the Digital Sector.
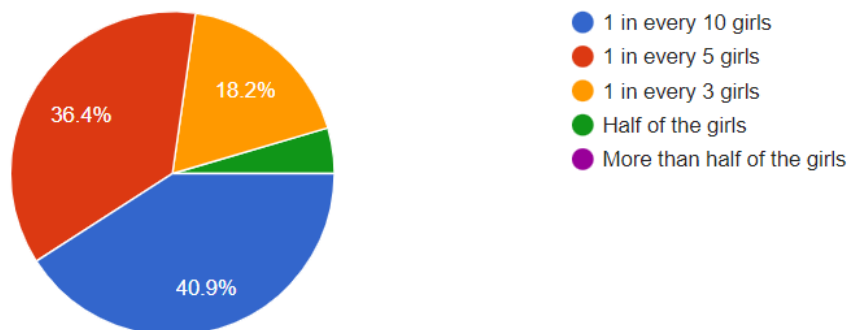
22 responses

- I fully disagree
- I tend to disagree
- I do not have an opinion
- I tend to agree
- I fully agree

63.6%
18.2%
9.1%
9.1%
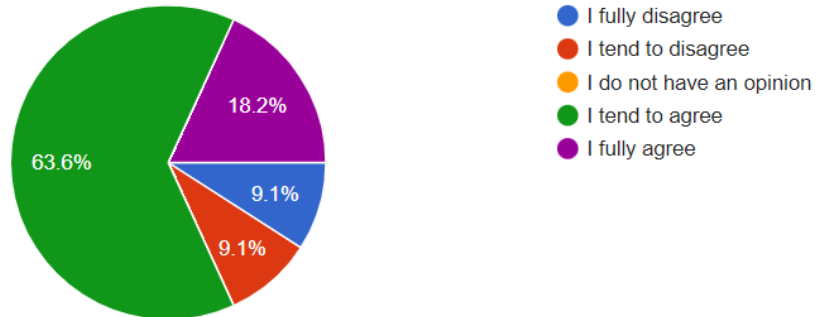
5. My girl students know of a number of women that work in ICT and/or the Digital Sector.

22 responses

- I fully disagree
- I tend to disagree
- I do not have an opinion
- I tend to agree
- I fully agree

36.4%
13.6%
18.2%
31.8%

6. What proportion of your girl students do you estimate to be attracted by a career in ICT and/or the Digital Sector?

22 responses

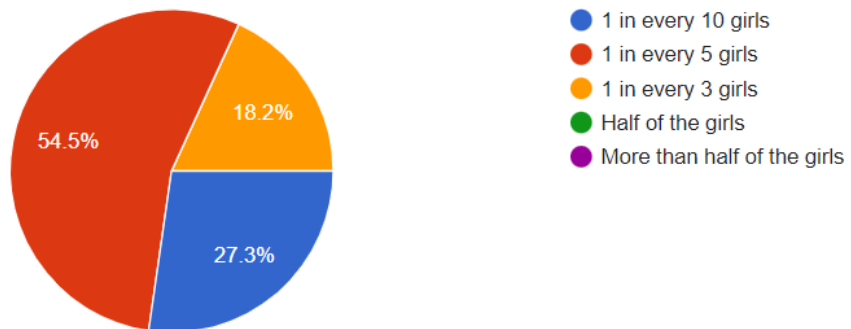- 1 in every 10 girls
- 1 in every 5 girls
- 1 in every 3 girls
- Half of the girls
- More than half of the girls

36.4%
18.2%
40.9%

7. I believe that students need to have ICT related studies to be able to pursue a career in the Digital Sector.
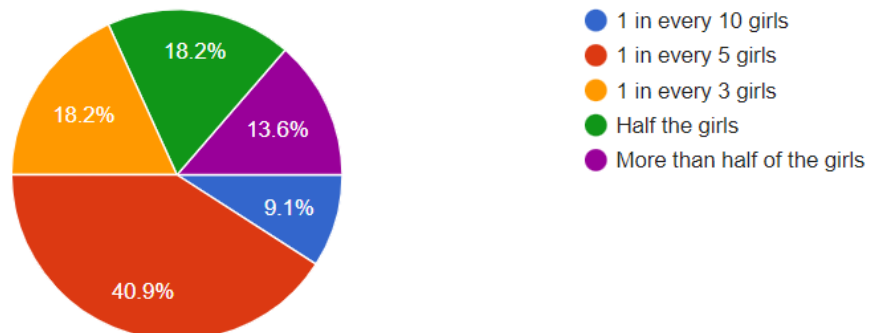
22 responses

- ● I fully disagree
- ● I tend to disagree
- ● I tend to agree
- ● I fully agree

31.8%

13.6%

9.1%

45.5%
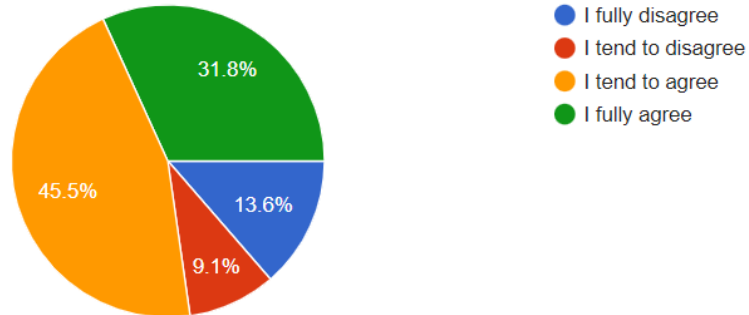
8. What proportion of your girl students do you estimate to be interested in ICT related studies?

22 responses

- ● 1 in every 10 girls
- ● 1 in every 5 girls
- ● 1 in every 3 girls
- ● Half of the girls
- ● More than half of the girls

18.2%

54.5%

27.3%

9. What percentage of your girl students do you estimate to be interested in other Science, Technology, Engineering or Math (STEM) studies?
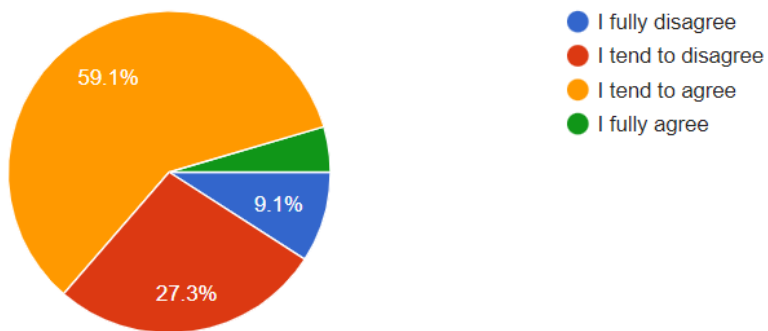
22 responses

- ● 1 in every 10 girls
- ● 1 in every 5 girls
- ● 1 in every 3 girls
- ● Half the girls
- ● More than half of the girls

18.2%

18.2%

13.6%

9.1%

40.9%

10. I am seeing a trend of increasing interest in ICT related studies and Digital Sector careers amongst my girl students.
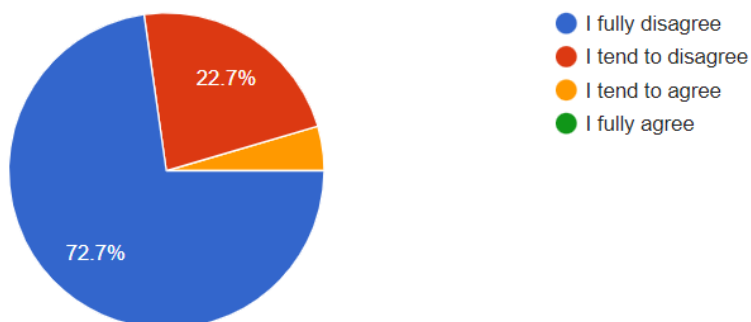
22 responses

- I fully disagree
- I tend to disagree
- I tend to agree
- I fully agree

59.1%

36.4%
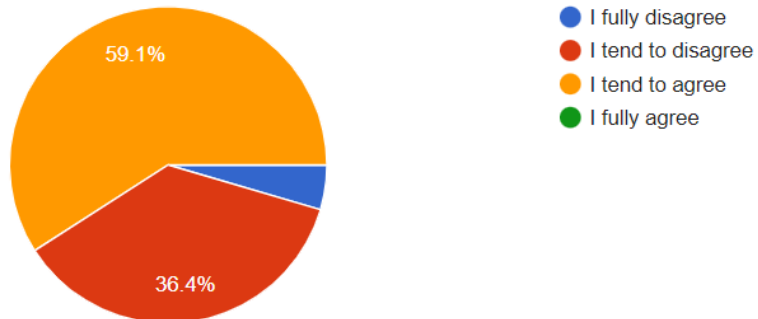
11. I am seeing a trend of increasing abilities in ICT related subjects amongst my girl students.

22 responses

- I fully disagree
- I tend to disagree
- I tend to agree
- I fully agree

59.1%

9.1%

27.3%

12. I believe that girls will never be as good as boys in ICT related subjects.

22 responses

- I fully disagree
- I tend to disagree
- I tend to agree
- I fully agree

22.7%

72.7%

13. I always provide examples of real-life application of ICT subjects and digital technologies including in areas that are traditionally attractive to girls (e.g. in health, education, social care, and environment).

22 responses

- I fully disagree
- I tend to disagree
- I tend to agree
- I fully agree
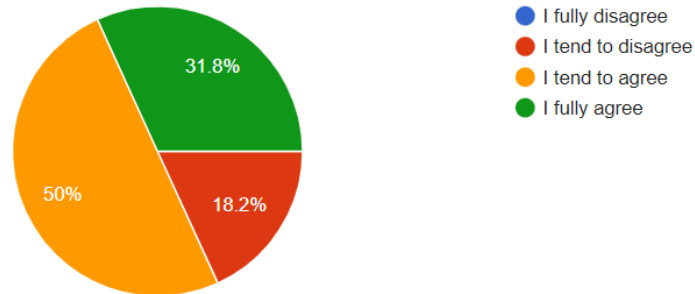
14. What are the main areas in which you think you need further information and professional training so as to be able to better stimulate the interest and prepare girl students for working in ICT and the Digital Sector?

22 responses

- The various types of jobs and professional roles needed in ICT and t...
- The skills and competences needed for such various jobs and professional rol...
- The various areas of real-life application of ICT subjects and digital technologies.
- The drivers of gender difference in per...
- How to make ICT related studies more...
- Other: please explain in the provided s...
- I do not need anything further.