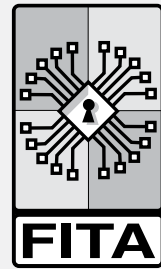


Fondazzjoni għall-Aċċessibilità fl-Informatika  
Foundation for Information Technology Accessibility (FITA)



# L-Informatika I-Komunikazzjoni w d-Diżabilità

Information Communications  
Technology and Disability

Rapport ta' Studju  
Study Report

# Introduzzjoni

## Mill-2003 sal-2005, il-Fondazzjoni għall-Aċċessibilità fl-Informatika għamlet studju dwar it-Teknoloġija ta' l-Informatika u d-Dizabilità

L-għan ta' dan l-istudju kien li jistharreg l-użu tat-teknoloġija minn persuni b'dizabilità f'Malta, jislet xejriet ta' kif it-teknoloġija tintuża u juri liema huma l-fatturi prinċipali li jikkontribwixxu għal dan l-użu. Din l-informazzjoni, tista' tgħin biex nifhmu aħjar kif il-bidla fl-età tal-popolazzjoni qed tolqot l-użu tal-kompjuters u x'inhuma l-bżonnijiet ta' l-anzjani u persuni b'dizabilità f'dik li hija teknoloġija aċċessibbli.

Teknoloġija aċċessibbli tgħin lill-individwi jadattaw il-kompjuters b'tali mod li dawn jaqdu aħjar il-bżonnijiet tagħhom fejn tidhol il-viżta, is-smiegħ, komunikazzjoni u mobilità. Din it-teknoloġija tinkludi prodotti komuni li juża kulhadd kif ukoll għodod oħra żviluppatti apposta (kemm software kif ukoll apparat) li jgħinu lill-individwu biex iħaddem kompjuters aħjar.

L-istudju kien jikkonsisti f'survey permezz ta' kwestjonarju mibgħut bil-posta lill-persuni b'dizabilità f'Malta. Dan il-kwestjonarju kien

fih mistoqsijiet maħsuba biex ikejlu n-numru, tip u severità ta' dizabilitajiet biex jiddeterminaw kif dawn jolqtu l-użu tal-kompjuters mill-persuna b'dizabilità

L-istudju nkluda erba' mija ħamsa u erbgħin (445) persuna b'firxa kbira ta' dizabilitajiet, inklużi persuni b'iktar minn tip wiehed ta' dizabilità. Is-survey kien ikopri sitt tipi ta' dizabilitajiet li jistgħu jaffettwaw l-użu tal-kompjuter: intellettuali, fiżiċi, saħħa mentali, nuqqas ta' smiegħ, nuqqas ta' viżta, moħbija/ oħrajn . Kien x'kien il-qasam ta' dizabilità, il-persuni kellhom jirrispondu għal mistoqsijiet dwar:

- Tagħrif dwar kompjuters
- Użu tal-kompjuters
- Aċċessibilità għall-kompjuters

Dan l-istudju huwa l-ewwel tentattiv kbir biex jiġi studjat l-użu tat-teknoloġija minn persuni b'dizabilità f'pajjiżna. Dan għandu jipprovdi tagħrif aħjar milli kellna qabel dwar is-suq Malti għat-teknoloġija aċċessibbli.

# Introduction

## Between 2003 and 2005, the Foundation for Information Technology Accessibility started conducting a study on ICT and disability

The goals of this study were to produce the information necessary to measure the effective use of information communications technology (ICT) by disabled people in Malta, extract usage patterns, and establish the main factors contributing to the use of ICT by disabled persons. This information, coupled with aging population trends, can help to explain the aging population's impact on computer use and need for accessible technology.

Accessible technology enables individuals to adjust their computers to meet their visual, hearing, mobility, cognitive, and communication needs. It includes both accessibility options built into products as well as assistive ICT (specialised hardware and software products that help individuals operate standard ICT equipment).

The study consisted of a nationwide survey conducted by mail. Participants were asked to fill in a questionnaire containing questions designed to assess a variety of difficulties and

impairments and degrees of severity to determine how they may impact the individual's use of computers.

The questionnaire was compiled by four hundred and forty five (445) individuals with a broad range of impairments, including persons with multiple disabilities. The survey covered six types of impairments that could impact computer use: intellectual, mobility, hearing, visual, mental health, hidden/other. Participants were also asked lifestyle and demographic questions. Independently from the type of impairment, the survey contained the following types of questions:

- Computer know how
- Computer use
- Computer accessibility

The study is the first large scale attempt at studying the use of technology by disabled persons. This should provide a deeper understanding of the Maltese market for accessible technology than previously available.

## Dwar il-FITA

Il-Fondazzjoni għall-Aċċessibilità fl-Informatika (FITA) giet iffundata mill-Malta Information Technology and Training Services Limited (MITTS) u l-Kummissjoni Nazzjonali Persuni b'Dizabilità (KNPD) fit-2 ta' Ottubru 2001.

L-għanijiet tal-Fondazzjoni huma:

- Li tippromwovi opportunitajiet indaqs għal kulhadd, b'mod partikulari fejn għandha x'taqsam l-informatika.
- Li toħloq servizzi ta' taħriġ fl-informatika għall-persuni b'dizabilità.
- Li tigbor u ixxerred tagħrif u taġġid dwar l-oqsma tal-informatika.
- Li taħdem flimkien ma' u tgħin organizzazzjonijiet publiċi u privati f'oqsma li jkomplu jżidu l-opportunitajiet indaqs fl-oqsma tal-informatika.
- Li taġġid servizzi ta' konsulenza lil organizzazzjonijiet publiċi u privati fl-oqsma tal-informatika w l-użu li jistgħu jagħmlu minnha persuni b'dizabilità.

### X'inhu x-xogħol tal-FITA?

Il-FITA hi l-entità ewlenija fi ħdan il-Gvern Malti, li tħares u tikkoordina l-aċċessibilità fl-informatika għall-persuni b'dizabilità. Is-servizzi ta' informazzjoni jgħinu persuni b'dizabilità sabiex jagħzlu, jiksbu u jużaw 'assistive technology' maħsuba biex tħares jew ittejjeb l-kwalità tal-ħajja tal-individwu.

Il-funzjoni ewlenija tal-FITA hi li tgħin persuni b'dizabilità' biex jirbħu jew ikissru l-ostakli li jsibu fl-edukazzjoni u x-xogħol. Jekk ikunu f'kundizzjoni li jistgħu jipparteċipaw u jagħtu aktar lis-soċjetà, l-persuni b'dizabilità ma jkollhomx għalfejn jibqgħu dipendenti fuq l-għajnuna tal-familja u s-servizzi soċjali. B'ħidma sħiħa biex innaqsu d-'digital divide', qed nagħtu ċans lill-persuni b'dizabilità li jikkontribwixxu b'mod produttiv lejn s-soċjetà u l-ekonomija Maltija. Nheggu diskriminazzjoni pożittiva lejn persuni b'dizabilità fejn dak li jkun jingħata l-opportunità u l-għodda teknoloġika li jkollu bżonn biex ikun jista' jagħmel x-xogħol mistenni minnu. L-għan taġġid huwa li ngħinu persuni b'dizabilità jintegraw aħjar f'ambjent partikulari billi nipprovdu soluzzjonijiet xierqa.

# About FITA

**The MITTS Foundation for Information Technology Accessibility (FITA)** was established by the Malta Information Technology and Training Services Limited (MITTS) and the Kummissjoni Nazzjonali Persuni b'Dizabilita' (KNPD) on October 2, 2001.

FITA aims and objectives:

- To promote equal opportunities for all, in particular in relation to information technology matters;
- To provide training services in information technology to disabled people;
- To gather and disseminate information and to increase awareness on information technology matters
- To liaise with and facilitate public and private endeavours in respect of the creation of equal opportunities in relation to information technology
- To offer advice and consultancy services to private and public organisations in information technology and its use by disabled persons

## What does FITA do?

FITA is the Maltese Government's principal advocate and coordinator for making information technology accessible for disabled people. Our information services assist disabled individuals in the selection, acquisition, or use of assistive technology, intended to maintain, or improve, the individual's quality of life.

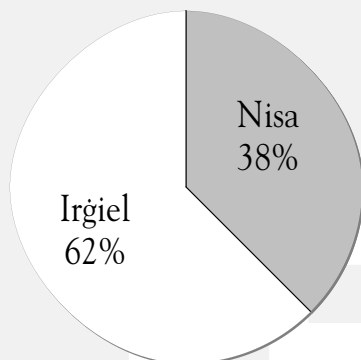
FITA's principal function is to provide support to disabled individuals in overcoming or removing barriers to education and employment. Through empowerment and social inclusion disabled persons need to rely less on family and state support. In ensuring that due steps are taken to minimise the digital divide, we aim to enable individuals to contribute productively to society and the economy. We encourage positive discrimination in respect of disabled individuals, and provide them with the option of using ICT in order for them to fulfil the requirements of a specific opportunity. Our aim is to facilitate the integration of disabled persons who find themselves at a disadvantage in a particular environment, by providing equitable and appropriate enabling accommodation.

# It-twegibiet migbura

# Survey results

## Demografija

### Tqassim skond is-sess

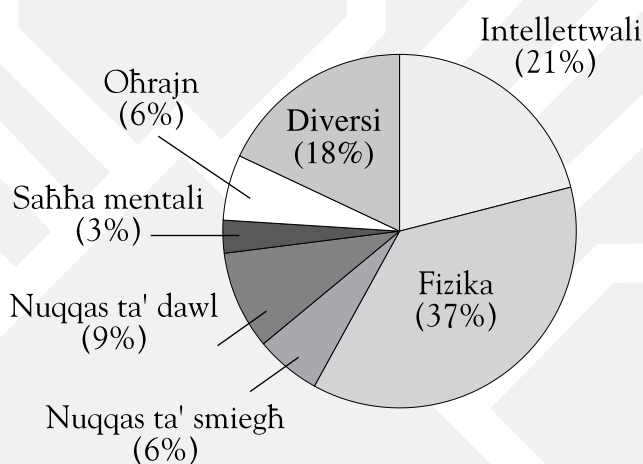


## Demographics

### Gender of respondents

Female	38%	167
Male	62%	278
<b>Total</b>	<b>100%</b>	<b>445</b>

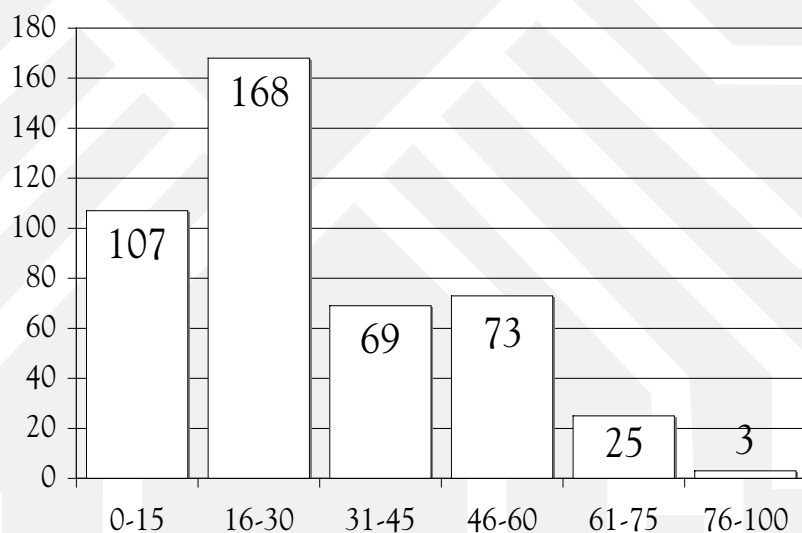
### Tqassim skond id-dizabilità



### Type of impairment

Mobility	37%	163
Visual	9%	41
Hearing	6%	28
Mental Health	3%	14
Intellectual	21%	94
Multiple	18%	79
Other	6%	26
<b>Total</b>	<b>100%</b>	<b>445</b>

### Tqassim skond l-età

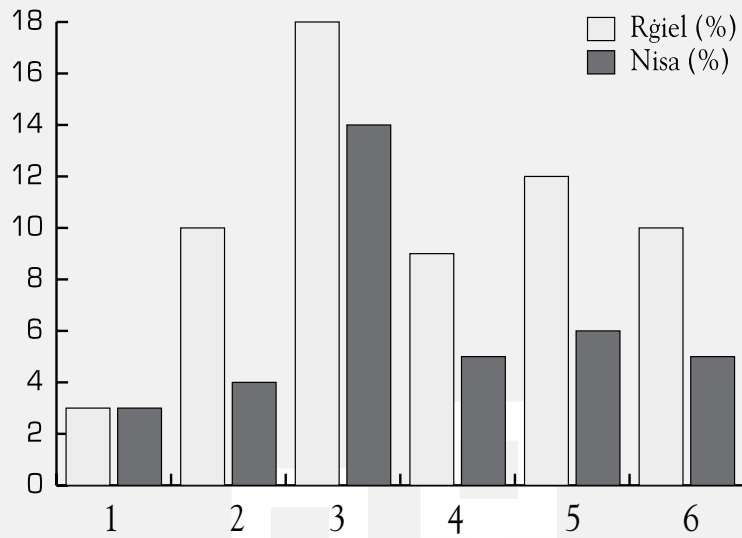


### Age of respondents

0-15 years	24%	107
16-30 years	38%	168
31-45 years	16%	69
46-60 years	16%	73
61-75 years	6%	25
76-100 years	1%	3
<b>Total</b>	<b>100%</b>	<b>445</b>

### Tqassim skond il-lokalità

- 1 - Għawdex u Kemmuna
- 2 - Tramuntana
- 3 - Tramuntana tal-Port
- 4 - Xlokk
- 5 - Nofsinhar tal-Port
- 6 - Punent



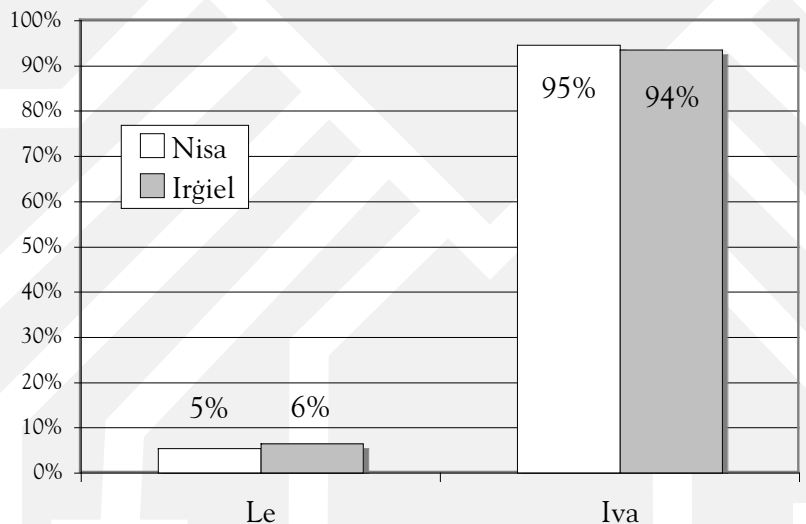
### Locality of Respondents

	Males (%)		Females (%)		Total (%)	
Gozo and Comino	15	3	13	3	28	6
Northern	43	10	18	4	61	14
Northern Harbour	80	18	64	14	144	32
South Eastern	41	9	22	5	63	14
Southern Harbour	53	12	27	6	80	18
Western	46	10	23	5	69	16
<b>Grand Total</b>	<b>278</b>	<b>62</b>	<b>167</b>	<b>38</b>	<b>445</b>	<b>100</b>

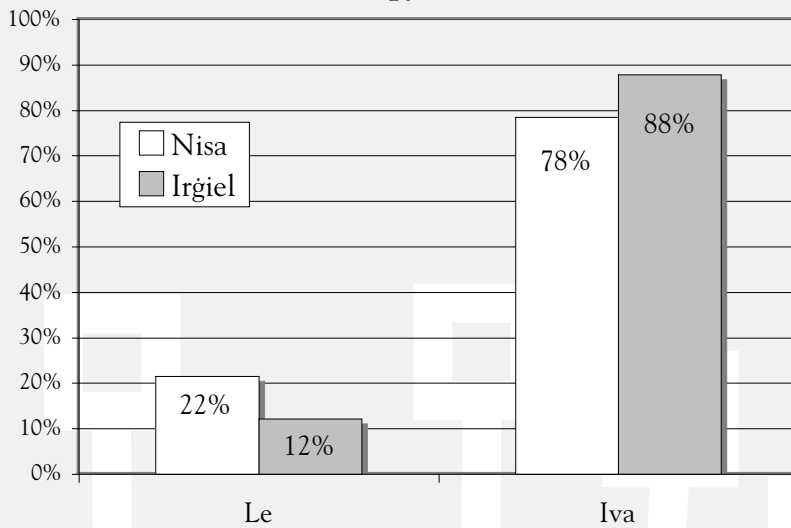
### Mistoqsija1: Inti tuza kompjuter?

#### Question1:Do you use a computer?

Gender	No	Yes	Total
Female	9	158	167
Male	18	260	278
<b>Total</b>	<b>27</b>	<b>418</b>	<b>445</b>



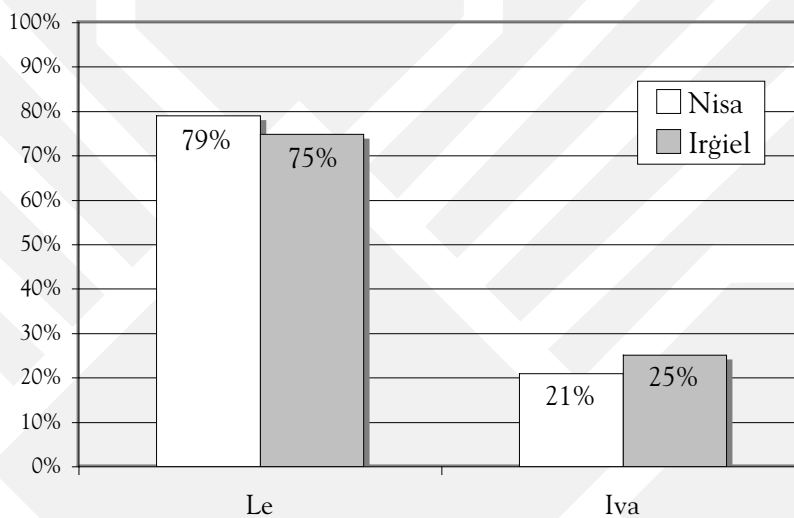
### M2: Għandek kompjuter id-dar?



**Q2: Do you have a computer at home?**

Gender	No	Yes	Total
Female	36	131	167
Male	34	244	278
<b>Total</b>	<b>340</b>	<b>105</b>	<b>445</b>

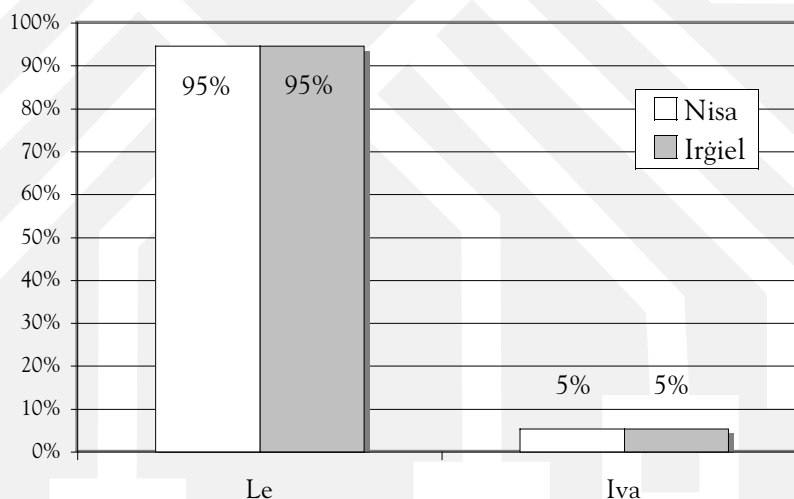
### M3: Nuża kompjuter fuq ix-xogħol



**Q3: I use computers at work**

Gender	No	Yes	Total
Female	132	35	167
Male	208	70	278
<b>Total</b>	<b>340</b>	<b>105</b>	<b>445</b>

### M4: Nuża kompjuter go Internet Café



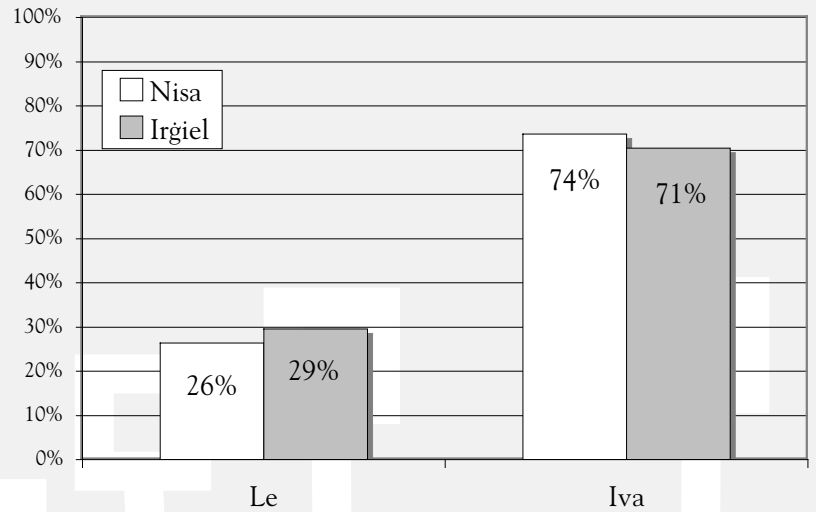
**Q4: I use computers at an Internet Café**

Gender	No	Yes	Total
Female	158	9	167
Male	263	15	278
<b>Total</b>	<b>421</b>	<b>24</b>	<b>445</b>

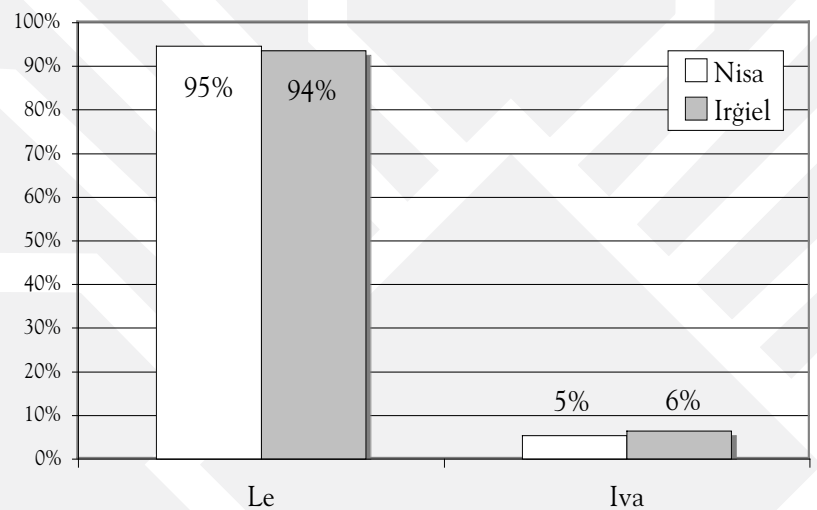


**Q5: I use computers elsewhere**

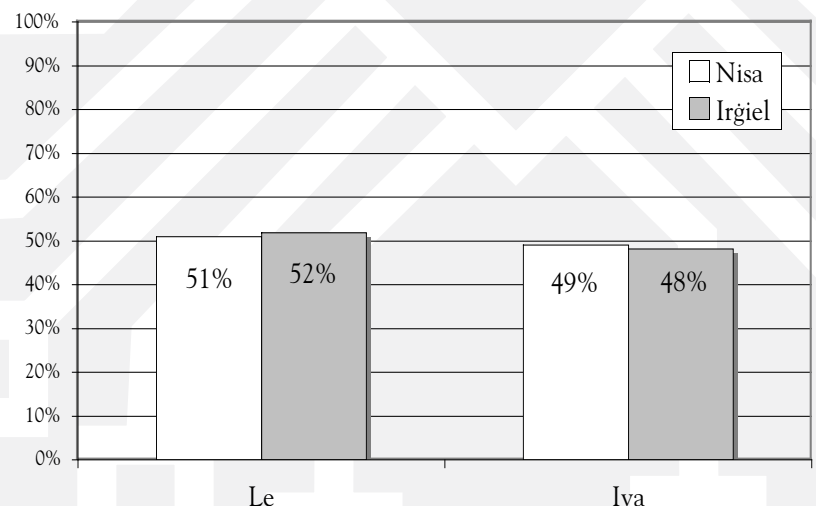
Gender	No	Yes	Total
Female	44	123	167
Male	82	196	278
<b>Total</b>	<b>126</b>	<b>319</b>	<b>445</b>

**M5: Nuża kompjuer x'imkien ieħor****Q6: I do not use computers**

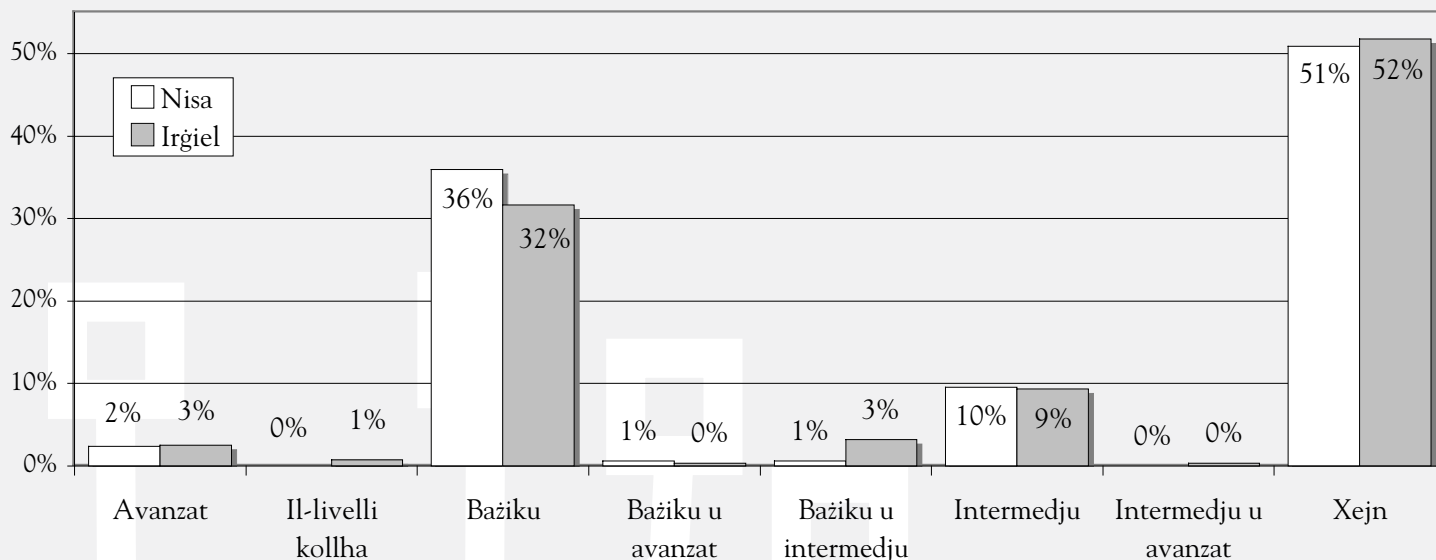
Gender	No	Yes	Total
Female	158	9	167
Male	260	18	278
<b>Total</b>	<b>418</b>	<b>27</b>	<b>445</b>

**M6: Ma nużax kompjuer****Q7: Did you attend a computer course in the past five years?**

Gender	No	Yes	Total
Female	85	82	167
Male	144	134	278
<b>Total</b>	<b>229</b>	<b>216</b>	<b>445</b>

**M7: Attendejt kors tal-kompjuer f'dawn l-aħħar ħames snin?**

## M8: Jekk IVA, liema livell ta' għarfien kellu jilhaq?

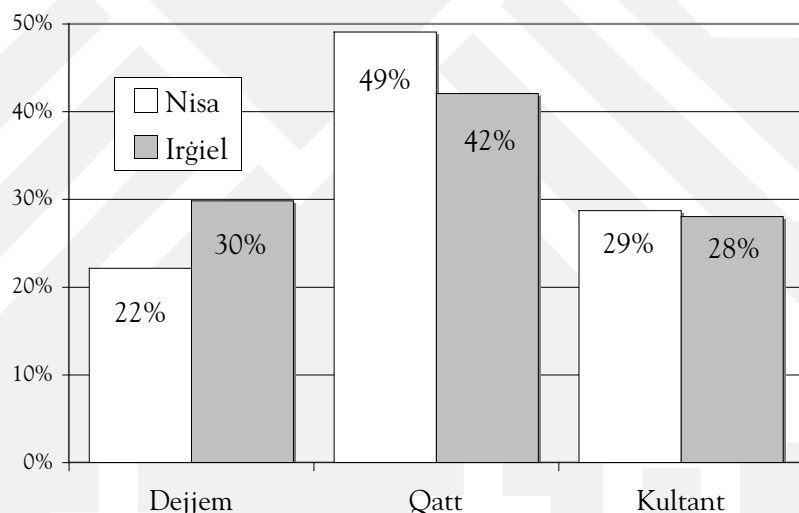


## Q8: If yes, what level of computer education was it targeted at?

Gender	Advanced	All Levels	Basic	Basic & Advanced	Basic & Intermediate	Intermediate	Intermediate & Advanced	None	Total
Female	4		60	1	1	16		85	167
Male	7	2	88	1	9	26	1	144	278
<b>Total</b>	<b>11</b>	<b>2</b>	<b>148</b>	<b>2</b>	<b>10</b>	<b>42</b>	<b>1</b>	<b>229</b>	<b>445</b>

## Użu tal-Microsoft Office

### M9: Użu ta' Personal information managers



## Office Applications

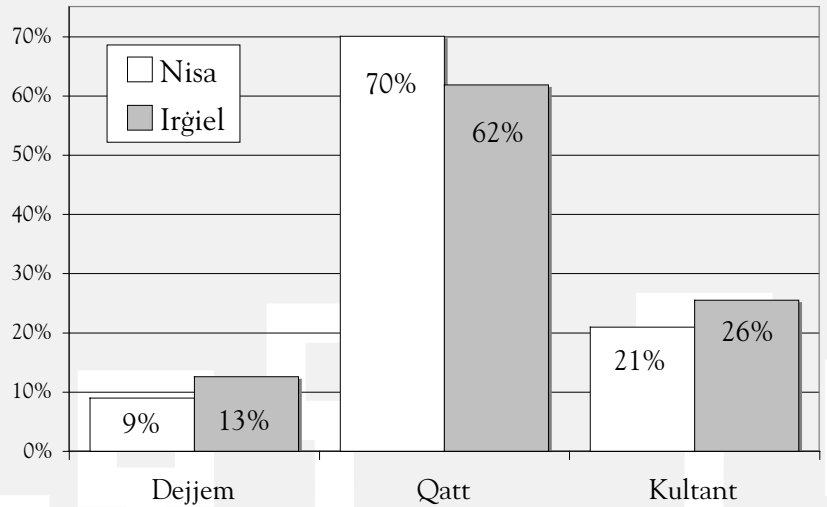
### Q9: Use of personal information managers

Gender	Always	Never	Sometimes	Total
Female	37	82	48	167
Male	83	117	78	278
<b>Total</b>	<b>120</b>	<b>199</b>	<b>126</b>	<b>445</b>

**Q10: Use of Spreadsheets**

Gender	Always	Never	Sometimes	Total
Female	15	117	35	167
Male	35	172	71	278
<b>Total</b>	<b>50</b>	<b>289</b>	<b>106</b>	<b>445</b>

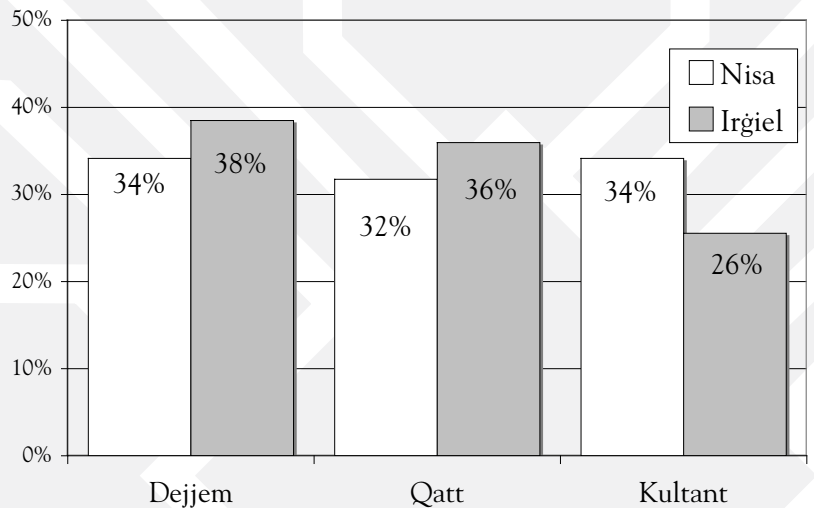
**M10: Użu ta' Spreadsheets**



**Q11: Use of Word Processing (Letters and Documents)**

Gender	Always	Never	Sometimes	Total
Female	57	53	57	167
Male	107	100	71	278
<b>Total</b>	<b>164</b>	<b>153</b>	<b>128</b>	<b>445</b>

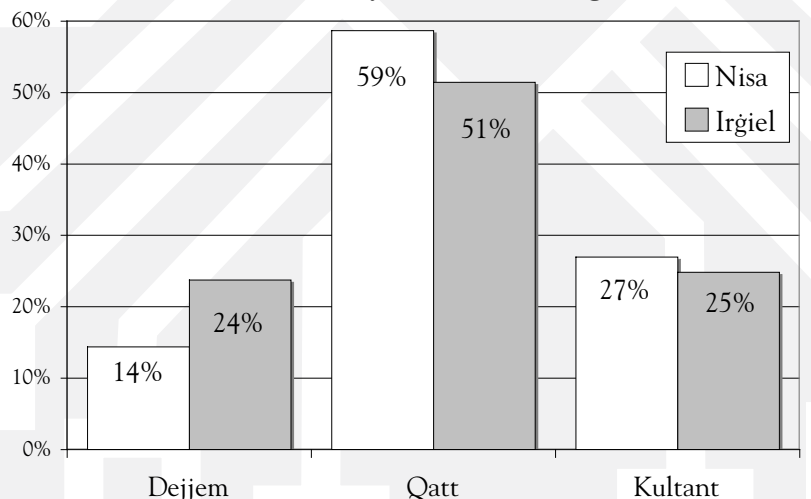
**M11: Użu ta' Word Processing (Itri u dokumenti)**



**Q12: Use of Databases (Any organized store of information)**

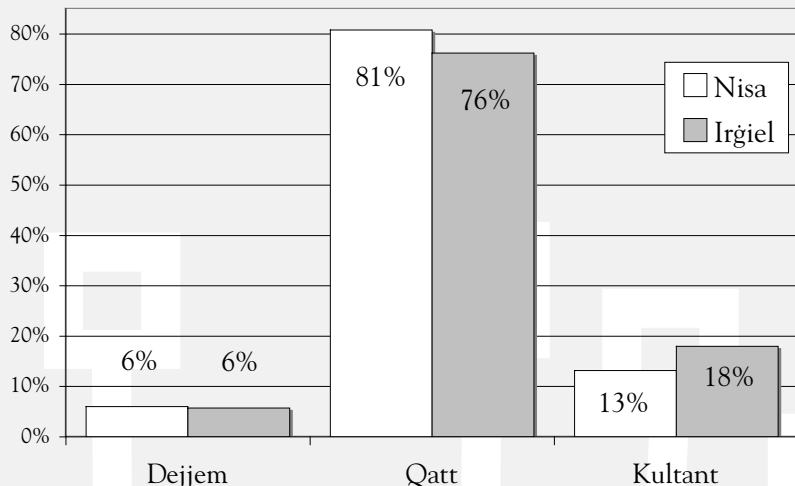
Gender	Always	Never	Sometimes	Total
Female	24	98	45	167
Male	66	143	69	278
<b>Total</b>	<b>90</b>	<b>241</b>	<b>114</b>	<b>445</b>

**M12: Użu ta' Databases (Kwalunkwe hażna ta' informazzjoni b'mod organizzat)**

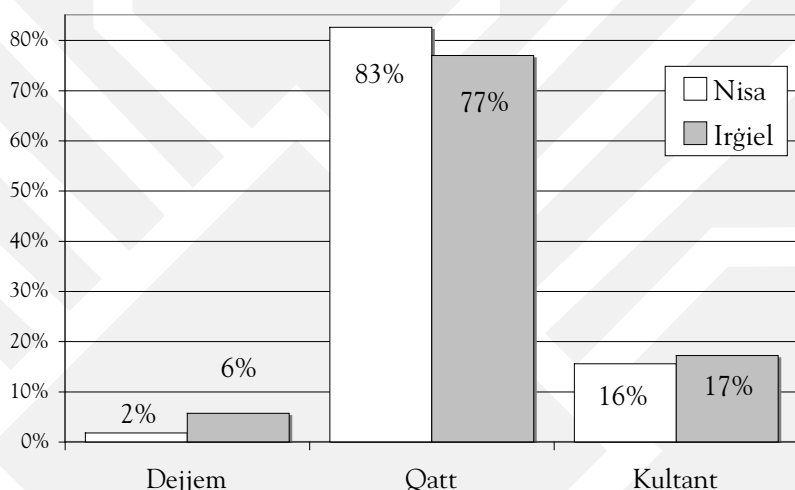


## Komunikazzjoni

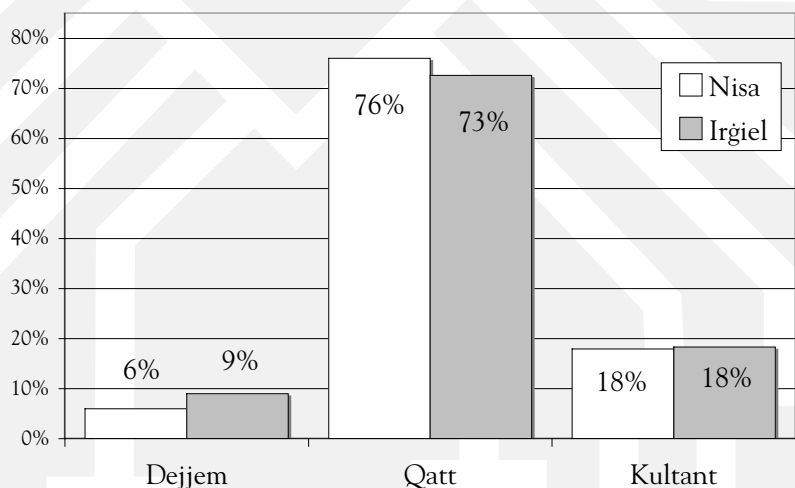
### M13: Użu ta' IRC (Internet Relay Chat)



### M14: Użu ta' ICQ (Community Chat)



### M15: Użu ta' MSN Messenger (Community Chat)



## Communication

### Q13: Use of IRC (Internet Relay Chat)

Gender	Always	Never	Sometimes	Total
Female	10	135	22	167
Male	16	212	50	278
<b>Total</b>	<b>26</b>	<b>347</b>	<b>72</b>	<b>445</b>

### Q14: Use of ICQ (Community Chat)

Gender	Always	Never	Sometimes	Total
Female	3	138	26	167
Male	16	214	48	278
<b>Total</b>	<b>19</b>	<b>352</b>	<b>74</b>	<b>445</b>

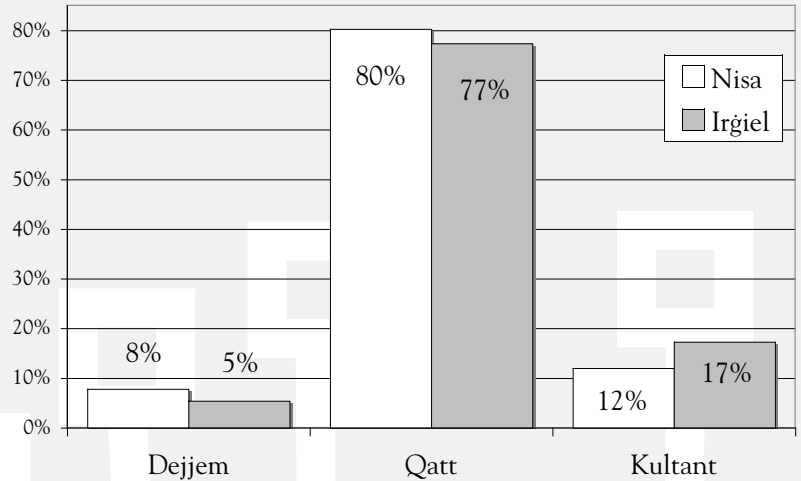
### Q15: Use of MSN Messenger (Community Chat)

Gender	Always	Never	Sometimes	Total
Female	10	127	30	167
Male	25	202	51	278
<b>Total</b>	<b>35</b>	<b>329</b>	<b>81</b>	<b>445</b>

**Q16: Use of Chatting  
(Other generic forums)**

<i>Gender</i>	<i>Always</i>	<i>Never</i>	<i>Sometimes</i>	<i>Total</i>
Female	13	134	20	167
Male	15	215	48	278
<b>Total</b>	<b>28</b>	<b>349</b>	<b>68</b>	<b>445</b>

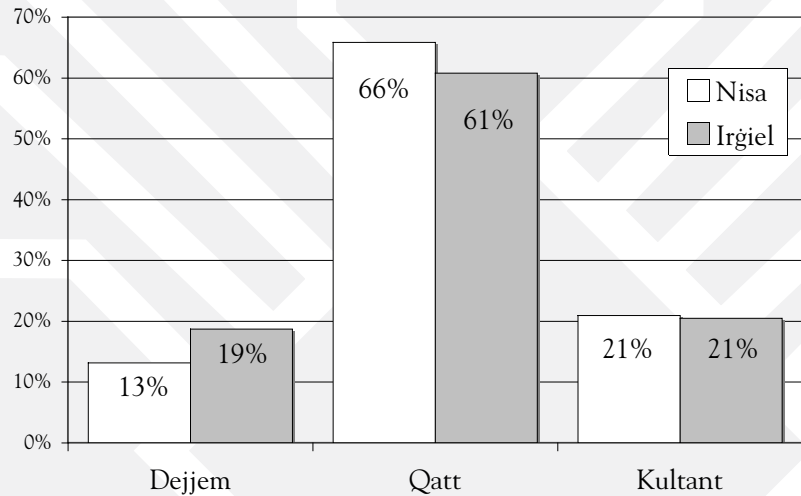
**M16: Uzu ta' Chatting  
(Other generic forums)**



**Q17: Use of Mailing Lists**

<i>Gender</i>	<i>Always</i>	<i>Never</i>	<i>Sometimes</i>	<i>Total</i>
Female	22	110	35	167
Male	52	169	57	278
<b>Total</b>	<b>74</b>	<b>279</b>	<b>92</b>	<b>445</b>

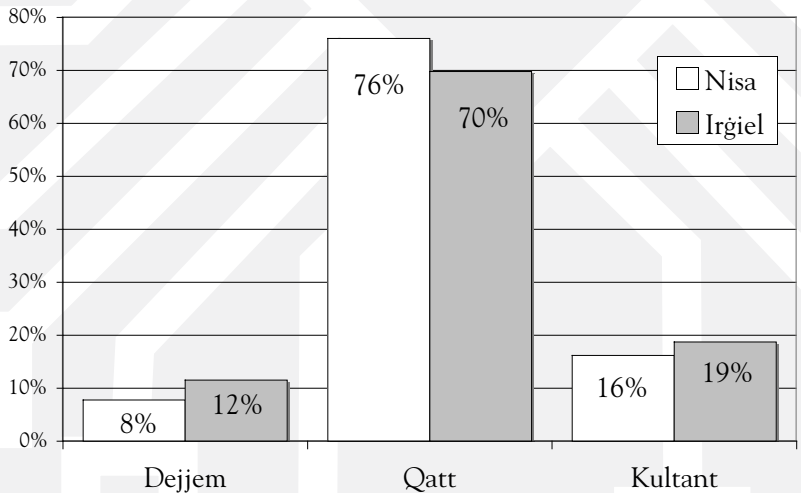
**M17: Uzu ta' Mailing Lists**



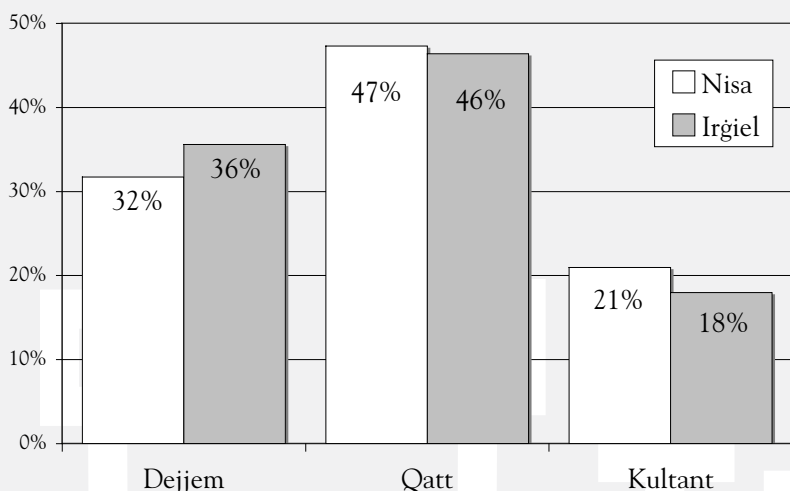
**Q18: Use of Newsgroups**

<i>Gender</i>	<i>Always</i>	<i>Never</i>	<i>Sometimes</i>	<i>Total</i>
Female	13	127	27	167
Male	32	194	52	278
<b>Total</b>	<b>45</b>	<b>321</b>	<b>79</b>	<b>445</b>

**M18: Uzu ta' Newsgroups**



### M19: Użu ta' Email

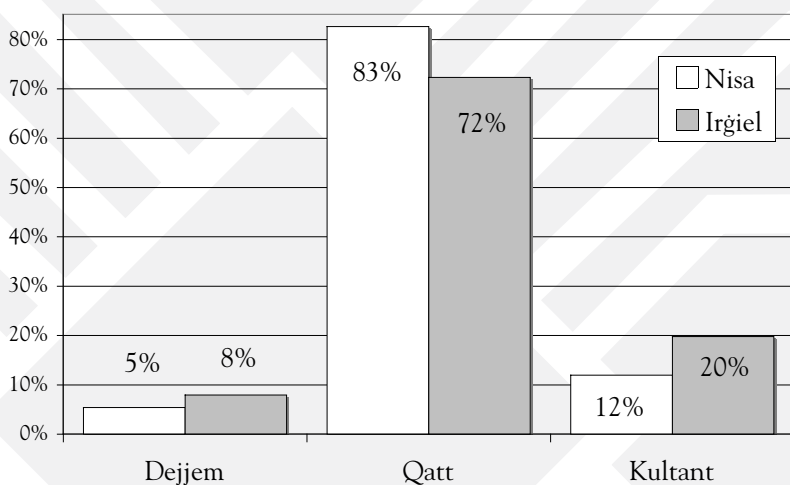


### Q19: Use of Email

Gender	Always	Never	Sometimes	Total
Female	53	79	35	167
Male	99	129	50	278
<b>Total</b>	<b>152</b>	<b>208</b>	<b>85</b>	<b>445</b>

### Iddizinjar u programmar

### M20: Tuża l-kompjuter biex tiprogramma?

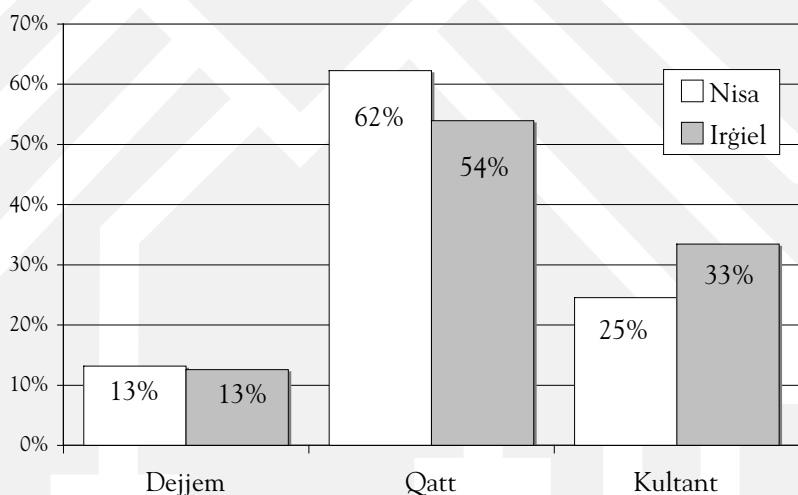


### Design and Development

### Q20: Do you use computers for programming?

Gender	Always	Never	Sometimes	Total
Female	9	138	20	167
Male	22	201	55	278
<b>Total</b>	<b>31</b>	<b>339</b>	<b>75</b>	<b>445</b>

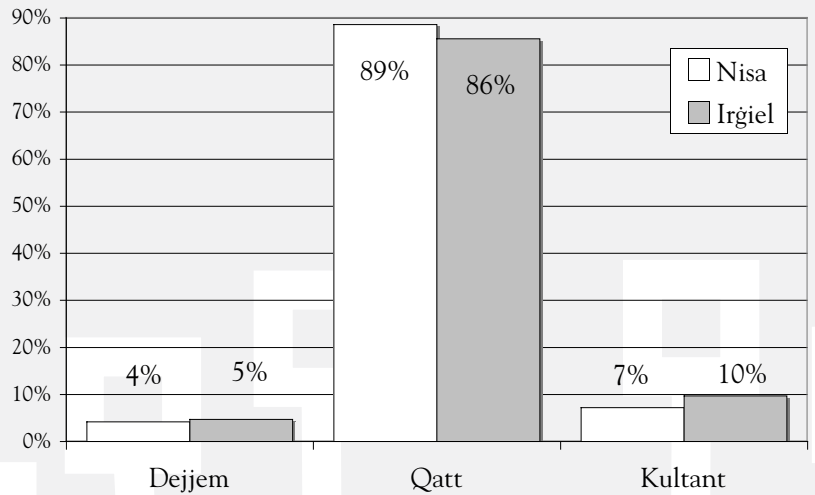
### M21: Użu ta' Graphical drawing u design



### Q21: Use of Graphical drawing and design

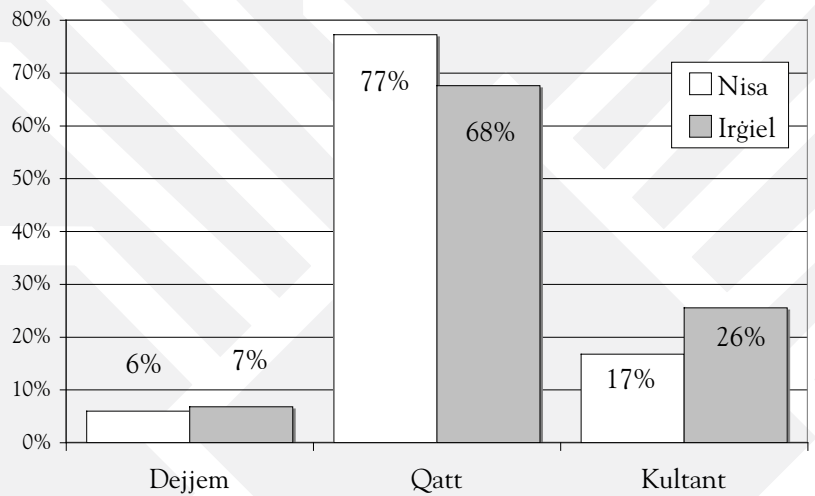
Gender	Always	Never	Sometimes	Total
Female	22	104	41	167
Male	35	150	93	278
<b>Total</b>	<b>57</b>	<b>254</b>	<b>134</b>	<b>445</b>

**M22: Tohloq pagħni għal web sites?**



<b>Q22: Do you carry out web design?</b>				
Gender	Always	Never	Sometimes	Total
Female	7	148	12	167
Male	13	238	27	278
<b>Total</b>	<b>20</b>	<b>386</b>	<b>39</b>	<b>445</b>

**M23: Użu ta' għodod għal multimedia authoring**

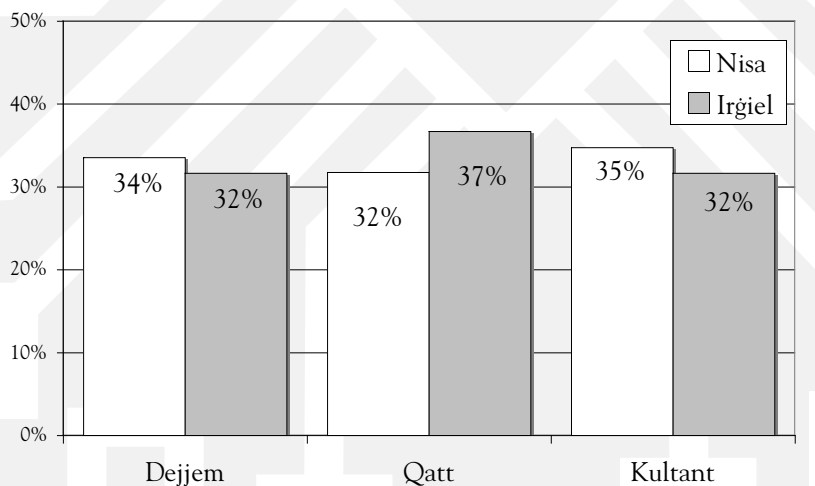


<b>Q23: Use of Multimedia authoring tools</b>				
Gender	Always	Never	Sometimes	Total
Female	10	129	28	167
Male	19	188	71	278
<b>Total</b>	<b>29</b>	<b>317</b>	<b>99</b>	<b>445</b>

**Tuition and Information Retrieval**

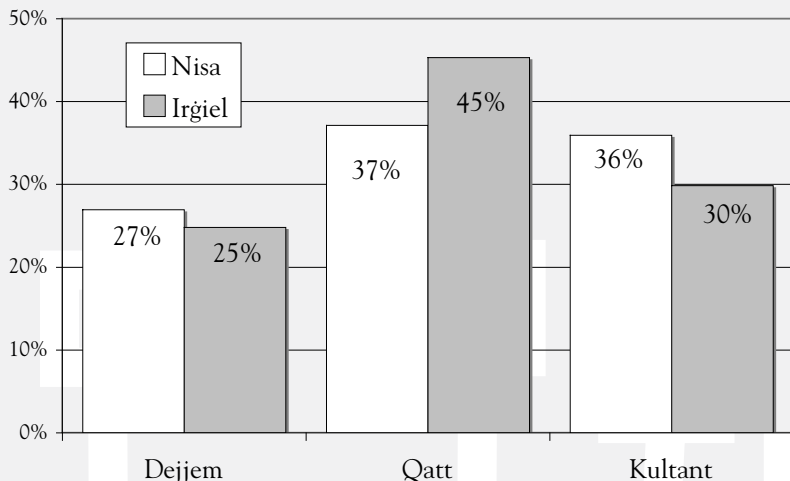
**Tagħlim u tiftix ta' informazzjoni**

**M24: Użu ta' software edukattiv**



<b>Q24: Use of Educational software</b>				
Gender	Always	Never	Sometimes	Total
Female	56	53	58	167
Male	88	102	88	278
<b>Total</b>	<b>144</b>	<b>155</b>	<b>146</b>	<b>445</b>

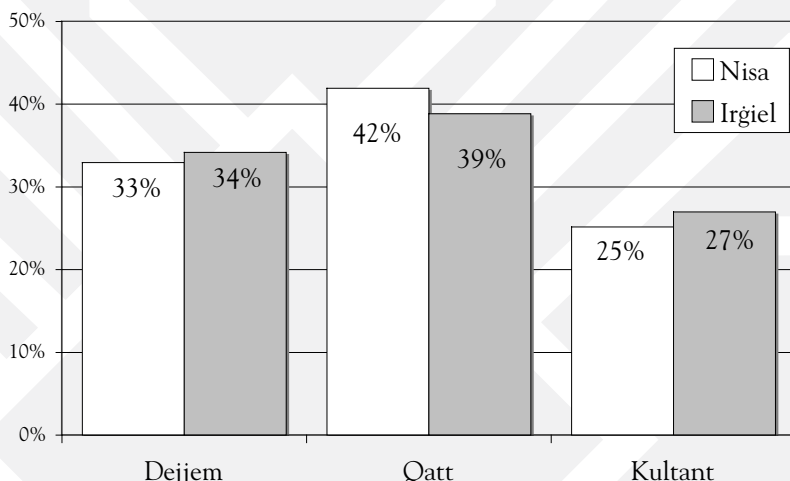
### M25: Computer based learning (Training software u tutorials)



### Q25: Computer based learning (Training software and tutorials)

Gender	Always	Never	Sometimes	Total
Female	45	62	60	167
Male	69	126	83	278
<b>Total</b>	<b>114</b>	<b>188</b>	<b>143</b>	<b>445</b>

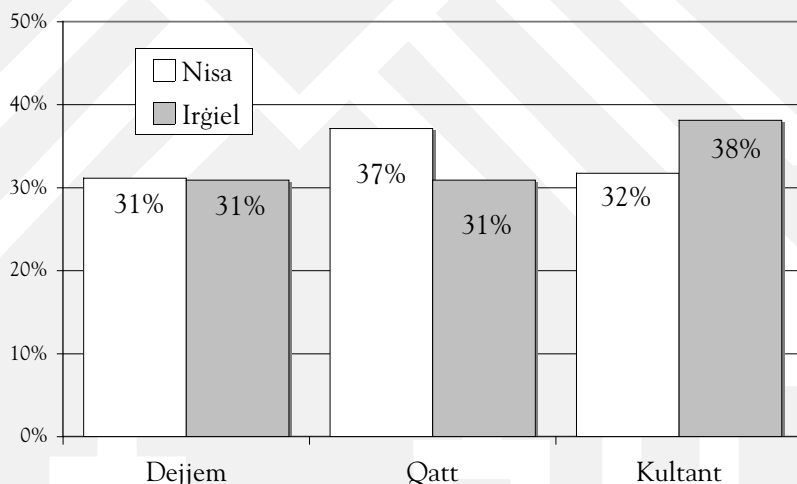
### M26: Tagħmel xi ricerka fuq l-Internet?



### Q26: Do you carry out research on the internet?

Gender	Always	Never	Sometimes	Total
Female	55	70	42	167
Male	95	108	75	278
<b>Total</b>	<b>150</b>	<b>178</b>	<b>117</b>	<b>445</b>

### M27: Software ta' Referenza (per eżempju enciklopediji)



### Q27: Reference software (Such as encyclopedias)

Gender	Always	Never	Sometimes	Total
Female	52	62	53	167
Male	86	86	106	278
<b>Total</b>	<b>138</b>	<b>148</b>	<b>159</b>	<b>445</b>



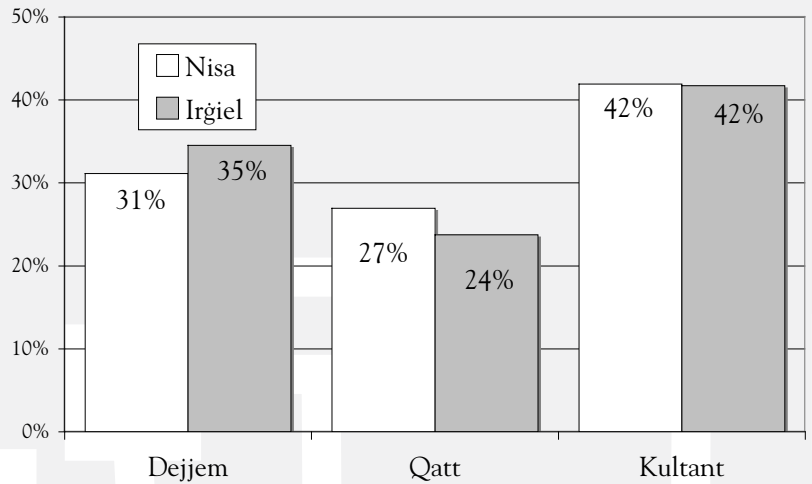
## Leisure

**Q28: Do you play games on the computer?**

Gender	Always	Never	Sometimes	Total
Female	52	45	70	167
Male	96	66	116	278
<b>Total</b>	<b>148</b>	<b>111</b>	<b>186</b>	<b>445</b>

## Passatemp

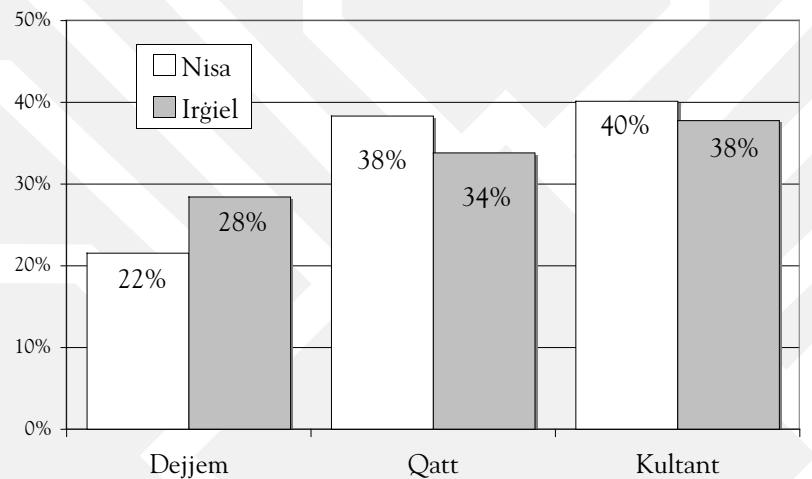
**M28: Tilghab loghob fuq il-kompjuter?**



**Q29: MP3 (Listening to music and audio books)**

Gender	Always	Never	Sometimes	Total
Female	36	64	67	167
Male	79	94	105	278
<b>Total</b>	<b>115</b>	<b>158</b>	<b>172</b>	<b>445</b>

**M29: MP3 (Smiegh ta' muzika u kotba)**

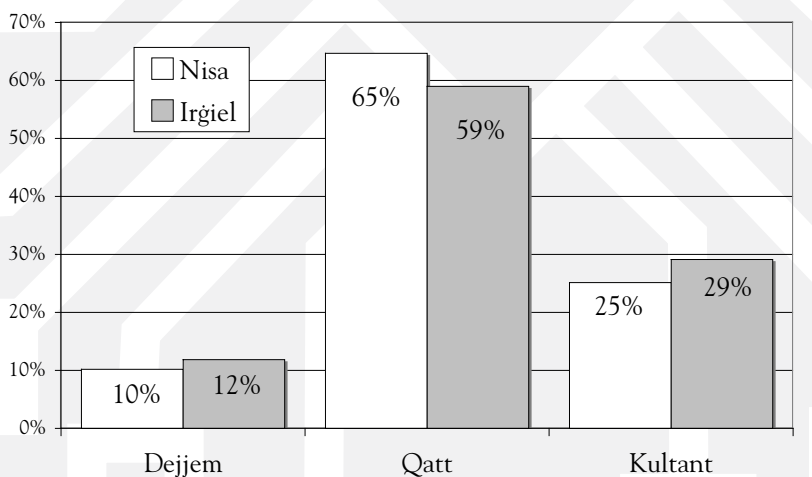


**Q30: MPG/DIVX (Watching movies on your computer)**

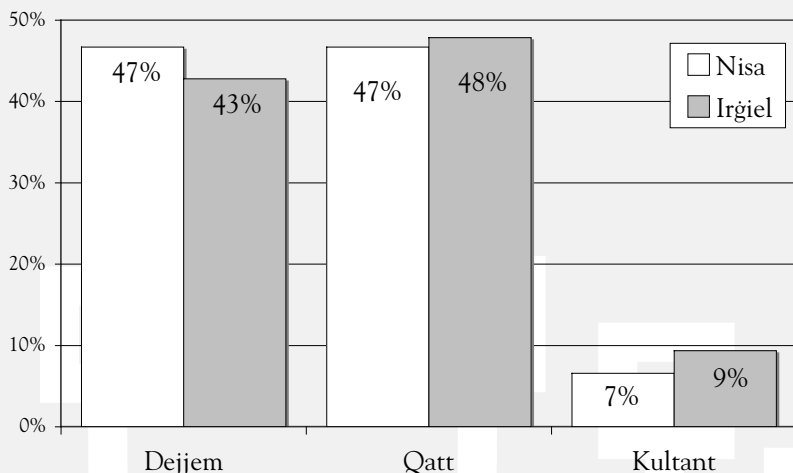
Gender	Always	Never	Sometimes	Total
Female	17	108	42	167
Male	33	164	81	278
<b>Total</b>	<b>50</b>	<b>272</b>	<b>123</b>	<b>445</b>

**M30: MPG/DIVX**

**(Wiri ta' films fuq il-kompjuter)**



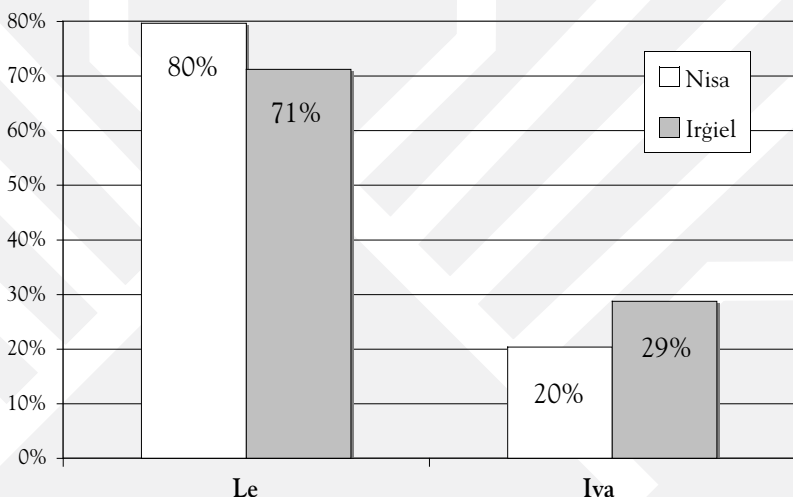
### M31: Kemm-il siegħa tuża l-kompjuter kuljum?



### Q31: For how many hours do you use computers daily?

Gender	<2hrs	2hrs-8hrs	>8hrs	Total
Female	78	78	11	167
Male	133	119	26	278
<b>Total</b>	<b>211</b>	<b>197</b>	<b>37</b>	<b>445</b>

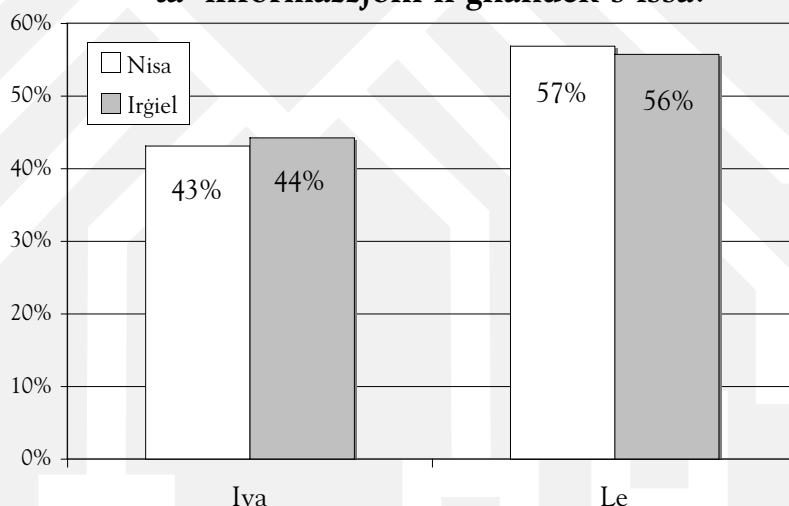
### M32: Għandek bżonn teknoloġija apposta



### Q32: Do you need assistive technology required in order to use a computer?

Gender	No	Yes	Total
Female	133	34	167
Male	198	80	278
<b>Total</b>	<b>331</b>	<b>114</b>	<b>445</b>

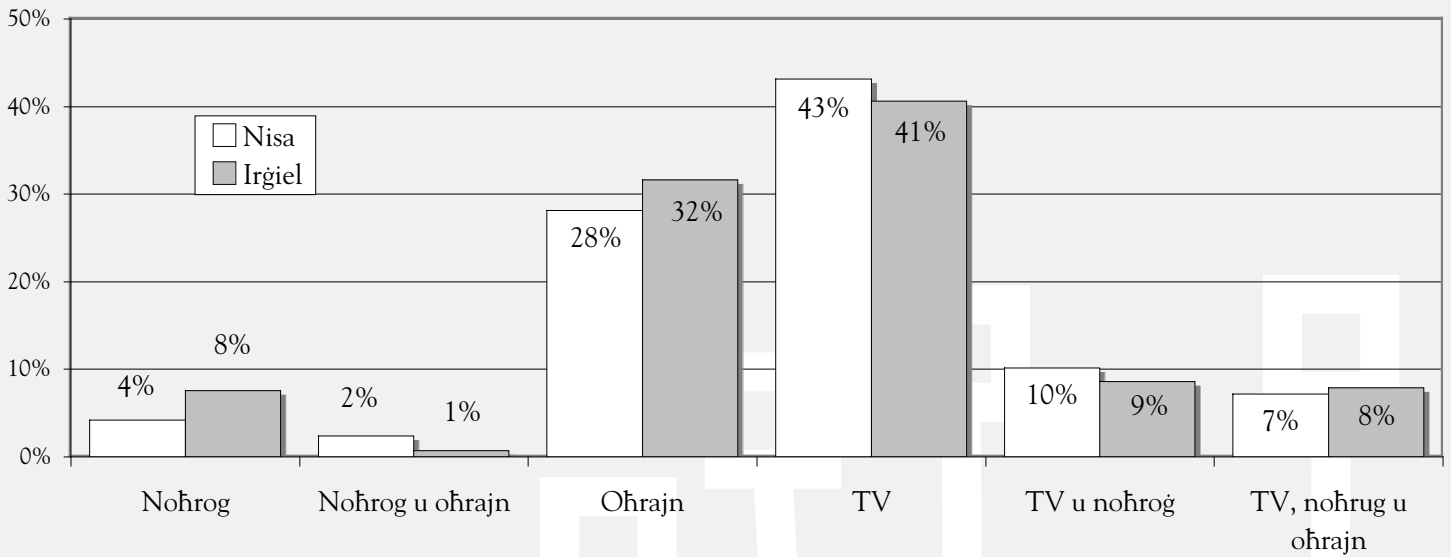
### M33: Il-kompjuter għandek bżonnu biex taċċessa l-istess ammont ta' informazzjoni li għandek s'issa?



### Q33: Is a computer needed to access same amount of information accessed now?

Gender	No	Yes	Total
Female	72	95	167
Male	123	155	278
<b>Total</b>	<b>195</b>	<b>250</b>	<b>445</b>

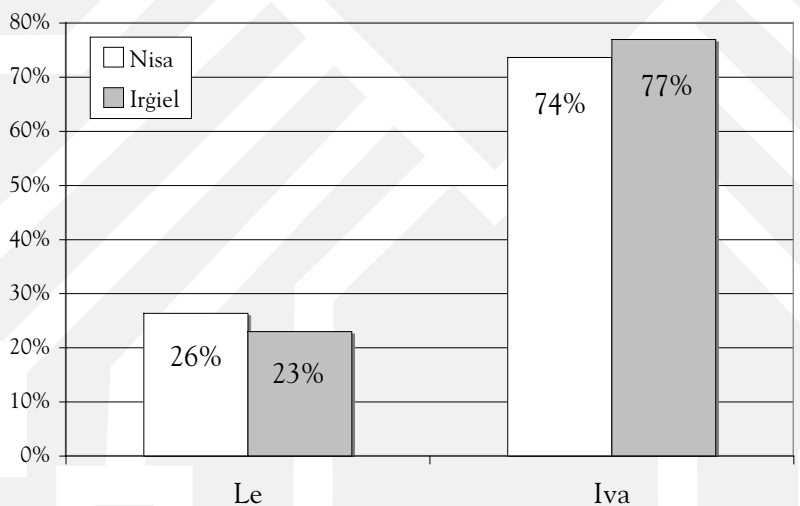
### M34: Alternattivi għall-kompjuter



### Q34: Primary alternatives to using a computer

Gender	Going out	Going out & Other	Other	TV	TV & Going out	TV & Other	TV, Going out & Other	Total
Female	7	4	47	72	17	12	8	167
Male	21	2	88	113	24	22	8	278
<b>Total</b>	<b>28</b>	<b>6</b>	<b>135</b>	<b>185</b>	<b>41</b>	<b>34</b>	<b>16</b>	<b>445</b>

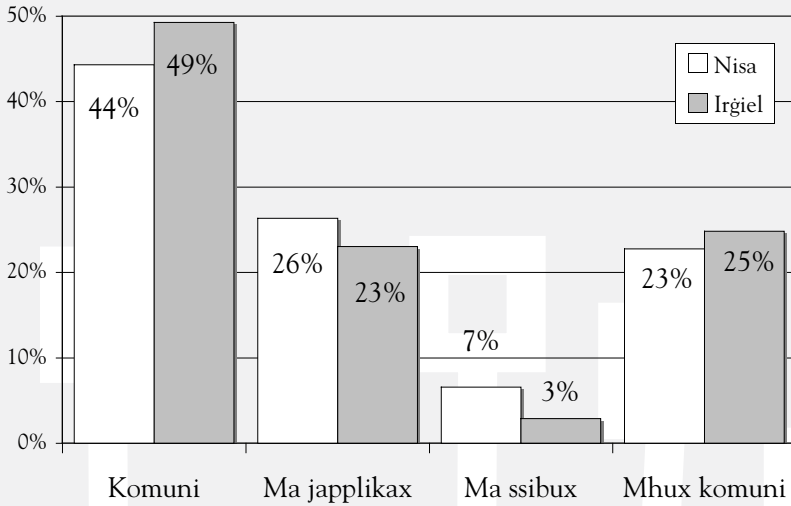
### M35: Jekk ittejjeb il-kompjuter, taħdem iktar bih?



### Q35: Would a computer upgrade allow you to do more things with it?

Gender	No	Yes	Total
Female	44	123	167
Male	64	214	278
<b>Total</b>	<b>108</b>	<b>337</b>	<b>445</b>

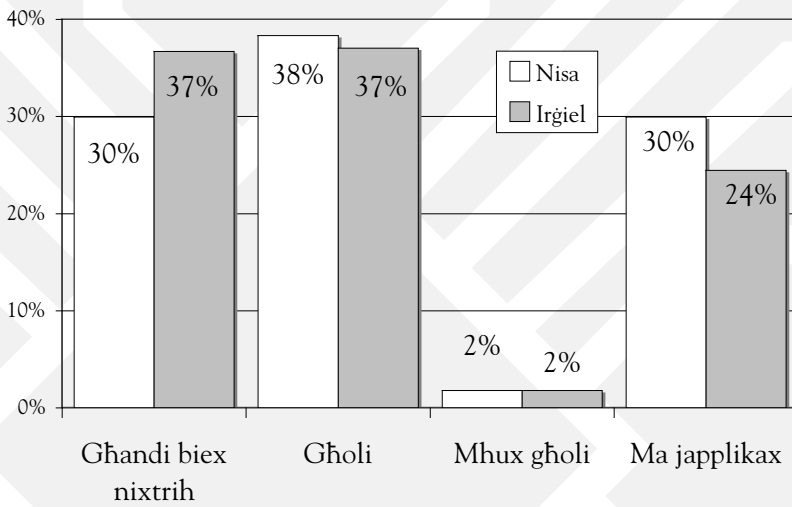
**Q36: Kemm huwa faċli li ttejjeb il-kompjuter?**



**Q36: How easy is it for you to have this add-on tool or improvement?**

Gender	Common	n/a Unavailable	Uncommon	Total
Female	74	44	11	167
Male	137	64	8	278
<b>Total</b>	<b>211</b>	<b>108</b>	<b>19</b>	<b>445</b>

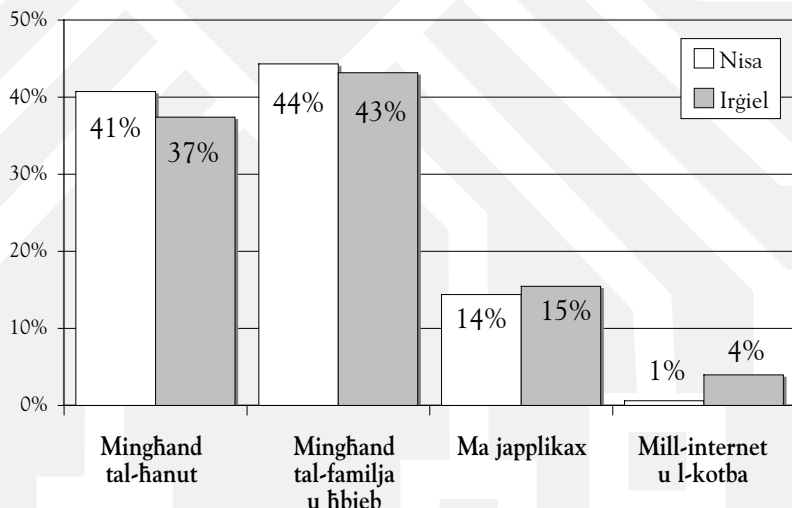
**M37: Dan it-titjib huwa irħis?**



**Q37: Is this add-on tool or improvement affordable?**

Gender	Affordable	Expensive	Inexpensive	n/a	Total
Female	50	64	3	50	167
Male	102	103	5	68	278
<b>Total</b>	<b>152</b>	<b>167</b>	<b>8</b>	<b>118</b>	<b>445</b>

**M38: Is-soltu minn fejn tikseb għajnuna dwar il-kompjuter?**



**Q38: From where do you usually get computer assistance?**

Gender	Computer Supplier	Family or Friends	n/a	Web, books or manuals	Total
Female	68	74	24	1	167
Male	104	120	43	11	278
<b>Total</b>	<b>172</b>	<b>194</b>	<b>67</b>	<b>12</b>	<b>445</b>