

# Educating the Digital Native

Integrating  
ICT in  
Teaching  
and  
Learning





Presented by:

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# **CROSSING BOUNDARIES: INVESTIGATING LEARNING AMONG THE “DIGITAL NATIVES” PRE-SERVICE TEACHERS**



**“Our students have changed radically.  
Today’s students are no longer the  
people our educational system was  
designed to teach.” (Prensky 2001 p1)**

# Introduction



- Today's generation is different to previous generations.
- Differences
  - Infused with networked and digital technologies
  - Social characteristics are different
  - Different expectations about life and learning



# **The Emergence of the New Generation**

# Introduction



- Howe and Strauss (1991, 2000) started the trend with “millennial”
- Tapscott (1999, 2009) further developed the concept and referred to them as “Net Generation”
- Prensky (2001a, 2001b), expanded on the two terms and created a distinction between today’s generation and previous generations as “Digital Natives/ Digital Immigrants”

# Introduction



- According to Prensky ([2001a](#)) those born after 1980 are classified as “digital natives”.
- This is because this group of people seem to spend an immense amount of time online and has incorporated a vast amount of digital technologies into their daily routines.

# Introduction



- Based on Prensky's definition of "Digital Natives" our study sought to find out if the "digital natives" of UTT are utilizing their social ICT skills academically and collaboratively.





# Our Theoretical Perspective

# Theoretical Perspective



- **Situated Learning Theory.**
- Focused on the following theory components:
  - Context (actual location or situation)
  - Application of knowledge (movement from the periphery to the center – that is from beginner to expert)

# Research Questions



- We aimed to answer the following research questions:
  1. Are there any pre-service “Digital Natives” within the UTT Bachelor of Education Programme, as defined by Prensky ([2001a](#), [2001b](#))

# Research Questions

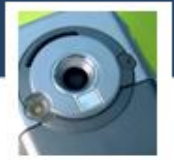


2. Do these UTT “digital natives” transfer the plethora of ICT technologies they utilize socially to their academic course of study in a cooperative and collaborative way while at UTT?
3. Do the “digital natives of the UTT Bachelor of Education Programme believe that the use of ICT enhances their learning experiences as they work cooperatively and collaboratively within their courses?



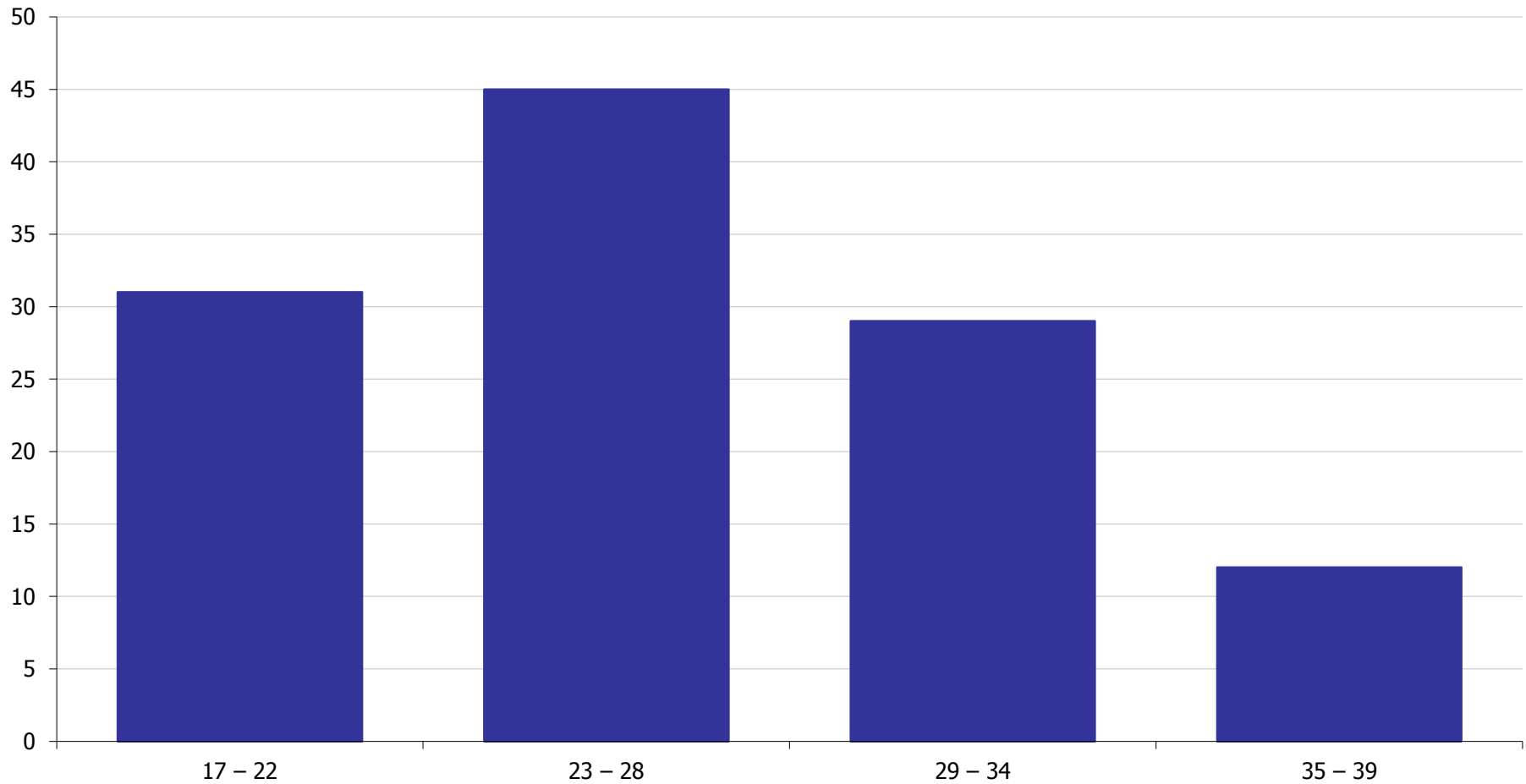
# OUR FINDINGS

# QUESTION 1

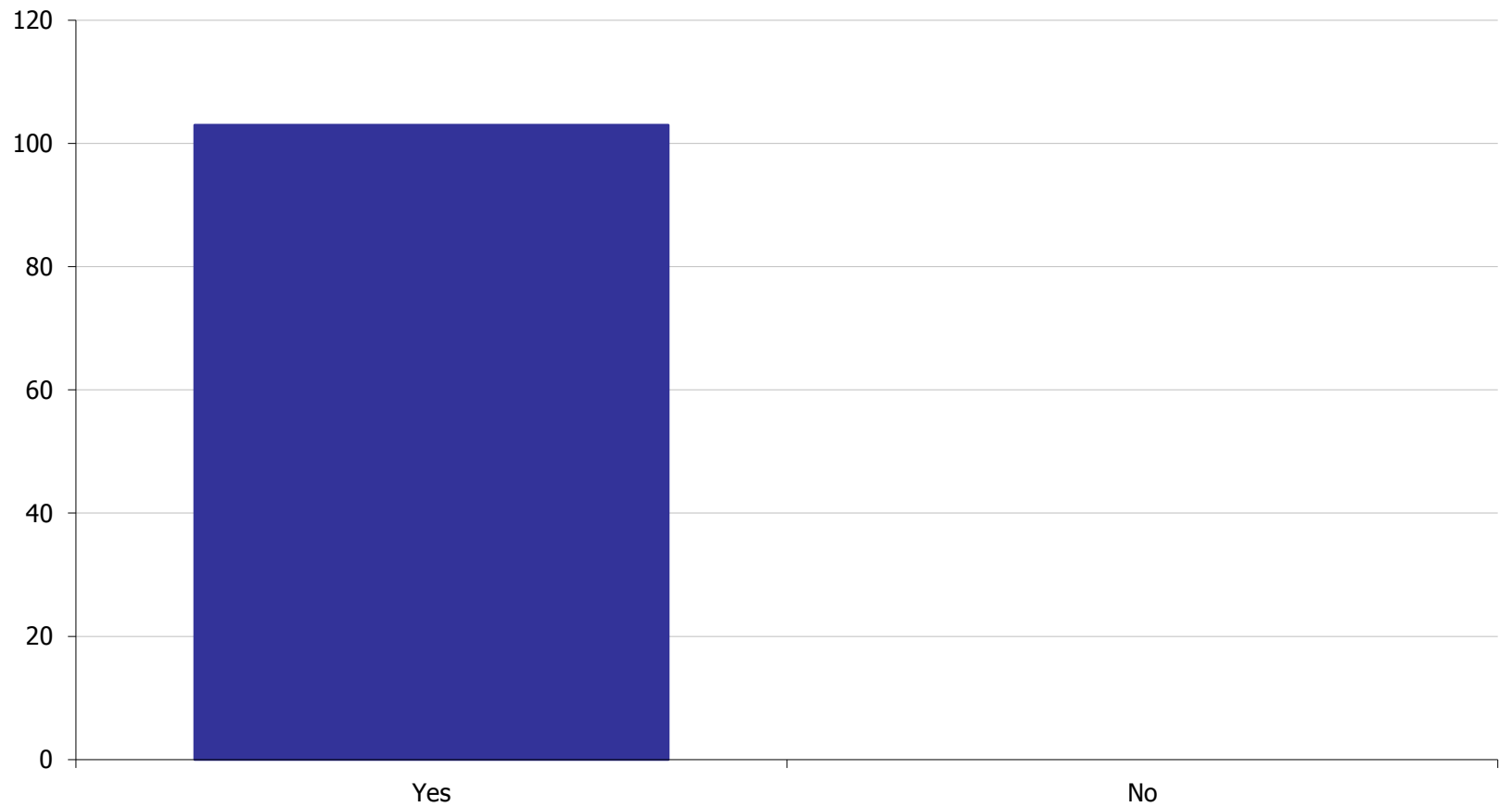


**Are there any pre-service “Digital Natives” within the UTT Bachelor of Education Programme, as defined by Prensky (2001a, 2001b)**

# Age Groups of Respondents

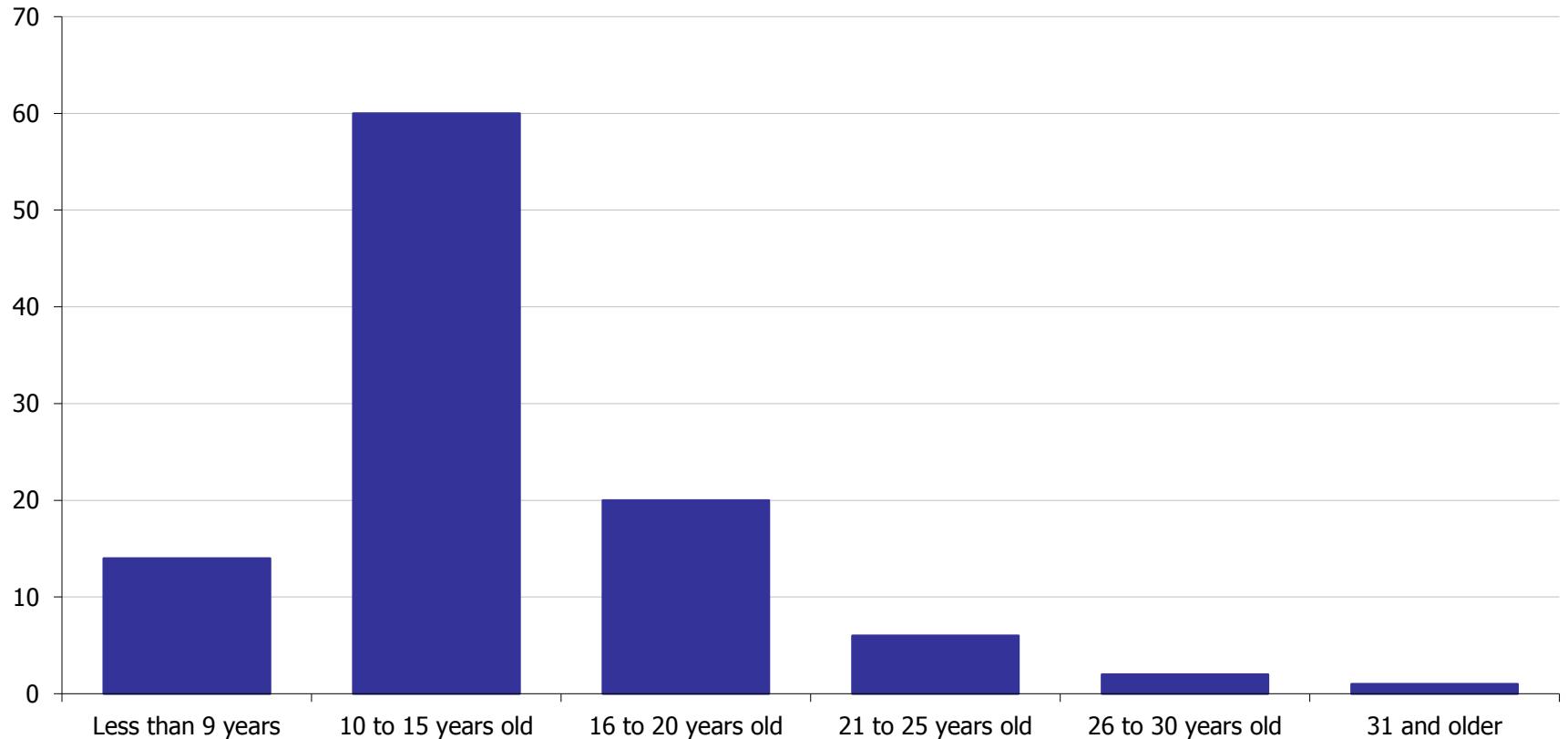


# Do you own a mobile phone?

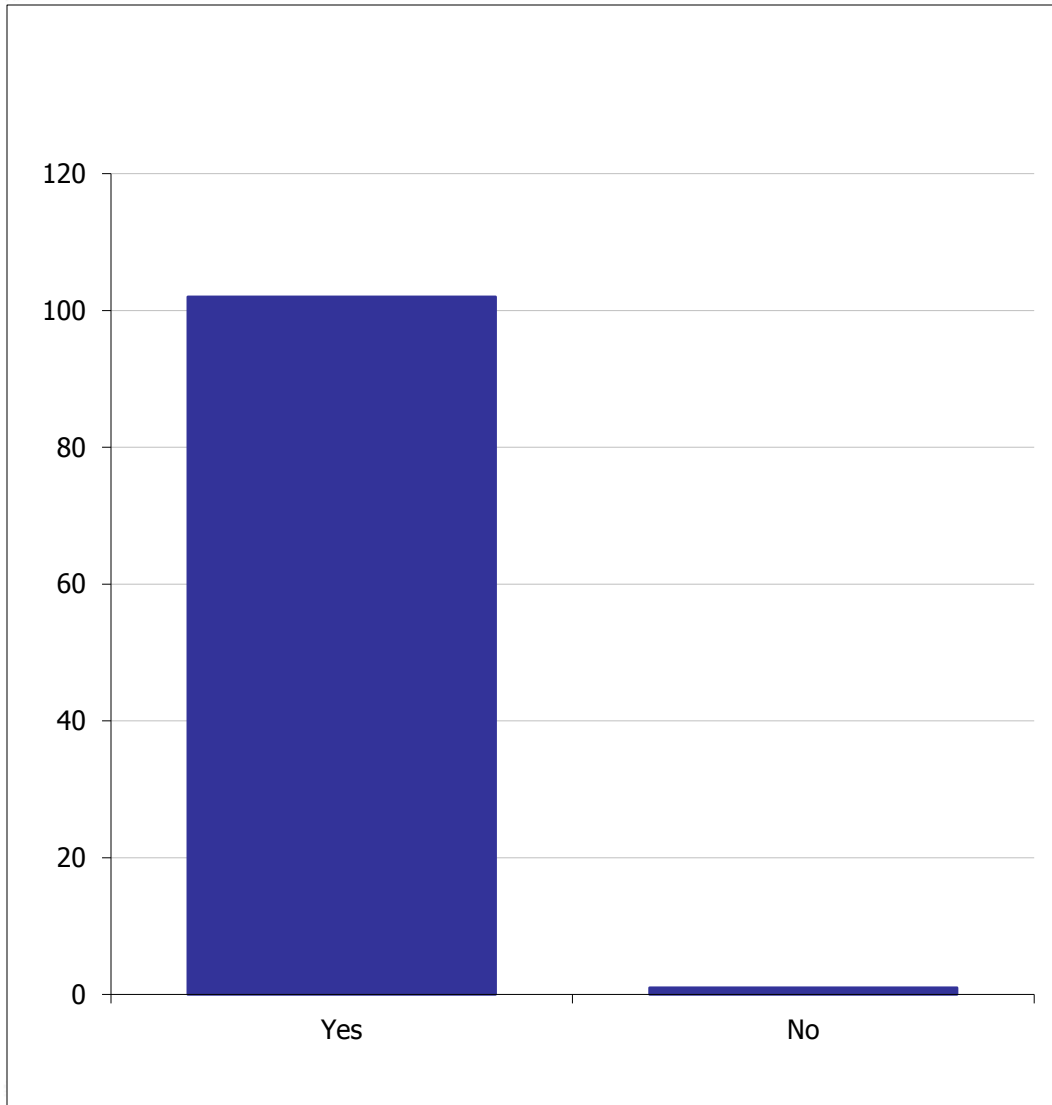




# At what age were you first exposed to computers?

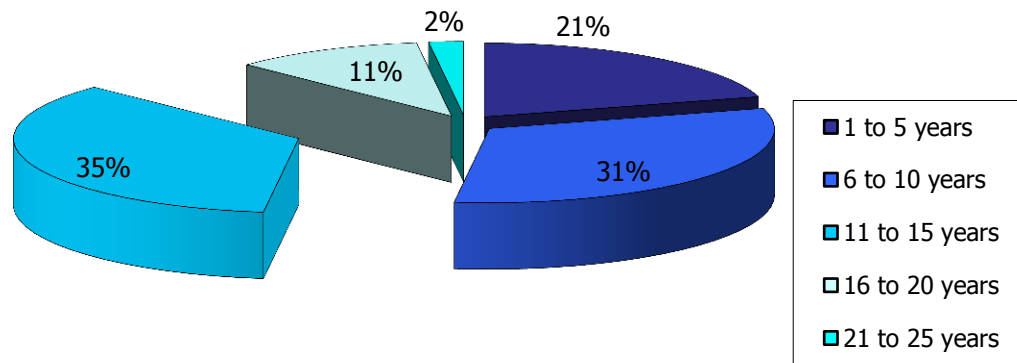


# Do you have a computer at home?



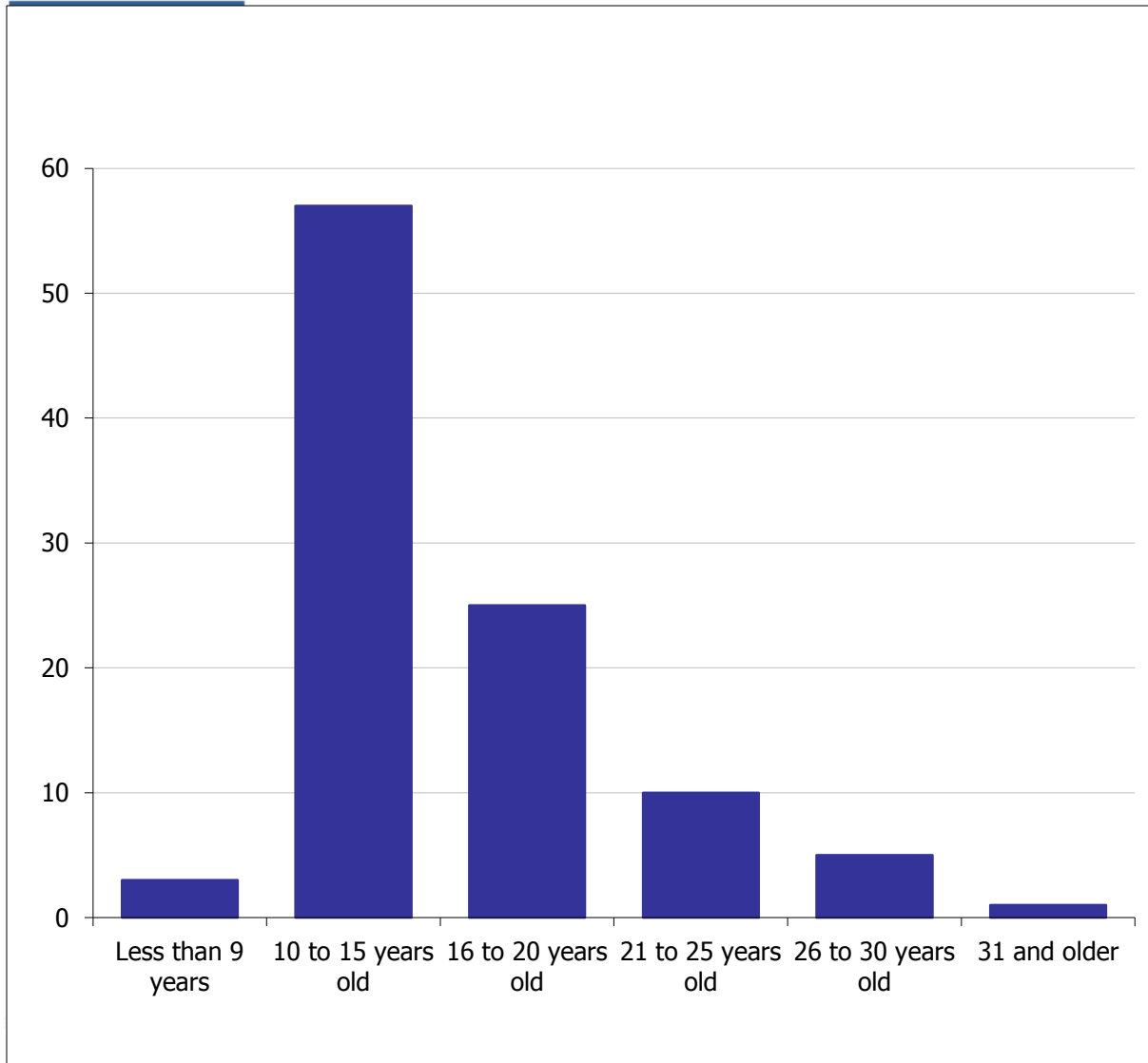
- Almost all students indicated they had a computer of some sort at home.

# How long have you had a computer at home?



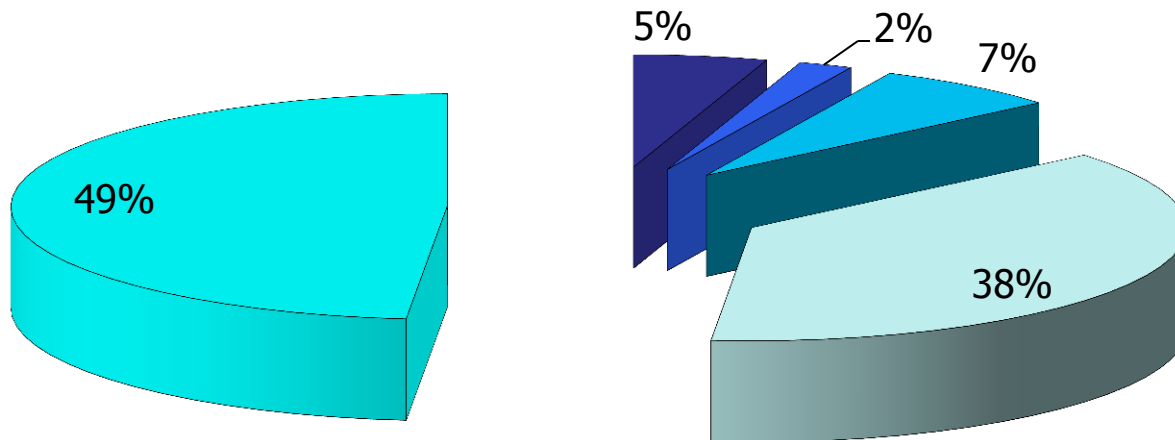
- Out of the 102 respondents 35% had a computer at home for 11 to 15 years

# At what age were you first exposed to the internet?



- Most of the students were exposed to the internet around the same age they were exposed to computers

# How often did you use the Internet at home?



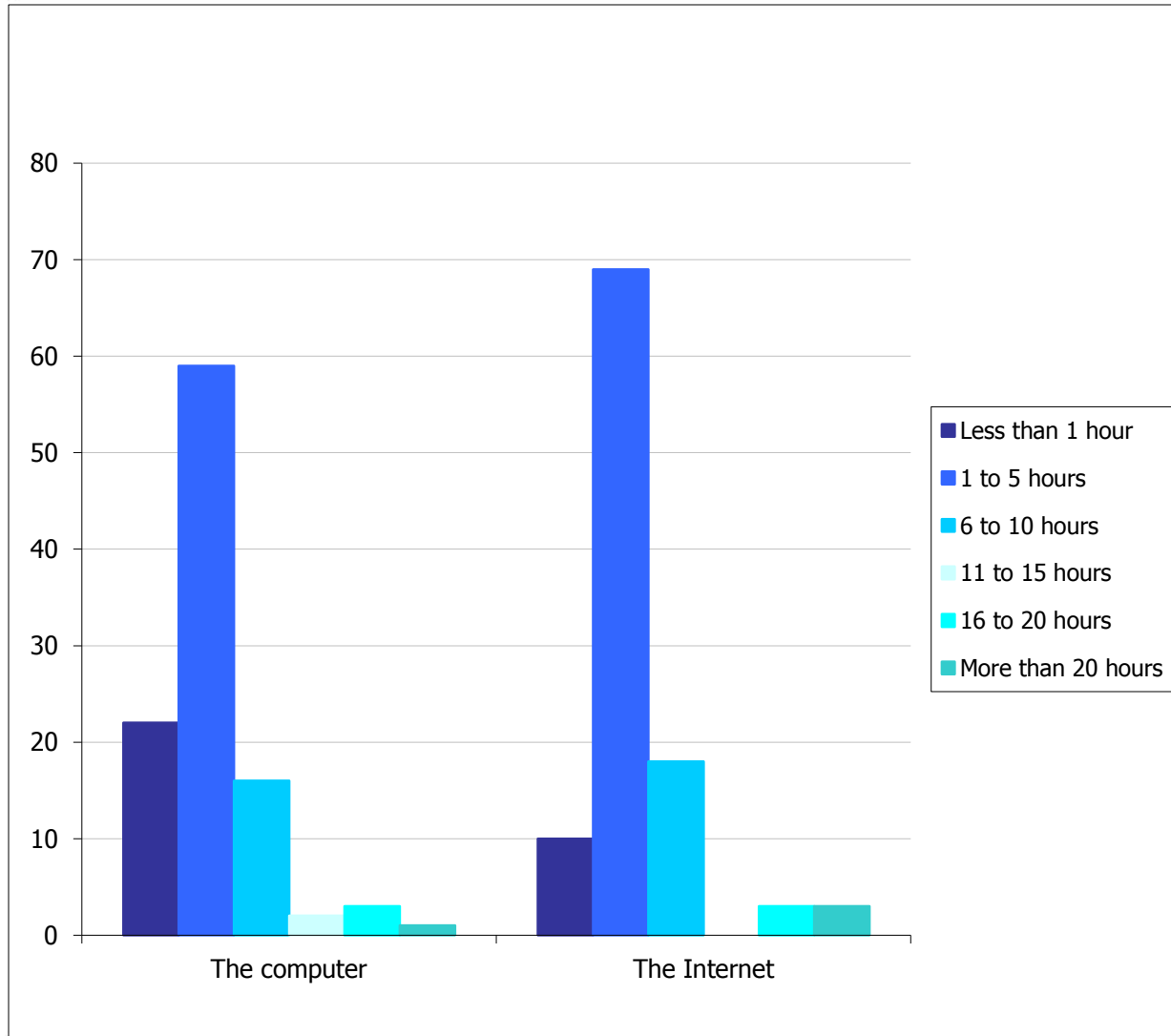
- Never
- About once a month
- About once a week
- Several times a week
- Every day

# Chi-Square Test for Independence



CHI-SQUARE TEST FOR INDEPENDENCE		Total						
VAR00002 -AGE								
VAR00014- FREQUENCY OF INTERNET USAGE AT HOME			About once a month	About once a week	Every day	Never	Several times a week	
17 - 22	Count	6	1	2	14	0	8	31
	% within VAR00002	19.4%	3.2%	6.5%	45.2%	.0%	25.8%	100.0%
	% within VAR00014	37.5%	50.0%	28.6%	28.6%	.0%	21.1%	26.1%
	% of Total	5.0%	.8%	1.7%	11.8%	.0%	6.7%	26.1%
23 - 28	Count	6	1	2	15	1	20	45
	% within VAR00002	13.3%	2.2%	4.4%	33.3%	2.2%	44.4%	100.0%
	% within VAR00014	37.5%	50.0%	28.6%	30.6%	20.0%	52.6%	37.8%
	% of Total	5.0%	.8%	1.7%	12.6%	.8%	16.8%	37.8%
29 - 34	Count	3	0	3	13	3	7	29
	% within VAR00002	10.3%	.0%	10.3%	44.8%	10.3%	24.1%	100.0%
	% within VAR00014	18.8%	.0%	42.9%	26.5%	60.0%	18.4%	24.4%
	% of Total	2.5%	.0%	2.5%	10.9%	2.5%	5.9%	24.4%
35 - 39	Count	1	0	0	7	1	3	12
	% within VAR00002	8.3%	.0%	.0%	58.3%	8.3%	25.0%	100.0%
	% within VAR00014	6.3%	.0%	.0%	14.3%	20.0%	7.9%	10.1%
	% of Total	.8%	.0%	.0%	5.9%	.8%	2.5%	10.1%
Total	Count	16	2	7	49	5	38	119
	% within VAR00002	13.4%	1.7%	5.9%	41.2%	4.2%	31.9%	100.0%
	% within VAR00014	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	13.4%	1.7%	5.9%	41.2%	4.2%	31.9%	100.0%

# On average how much time do you spend during a session on the computer and the internet



- Overall students spent only 1 to 5 hours on the internet in some cases less than 1 hour
- Only few spent more than 6 hours on their computers and the internet



- Overall based on the data collected, students at UTT fall into the “digital natives” category as defined by Prensky (2001) because:
- Students were exposed to computers and the internet at a young age and showed use of both. However, the data showed that students within this survey only spent 1 to 5 hours using their computers and the internet.

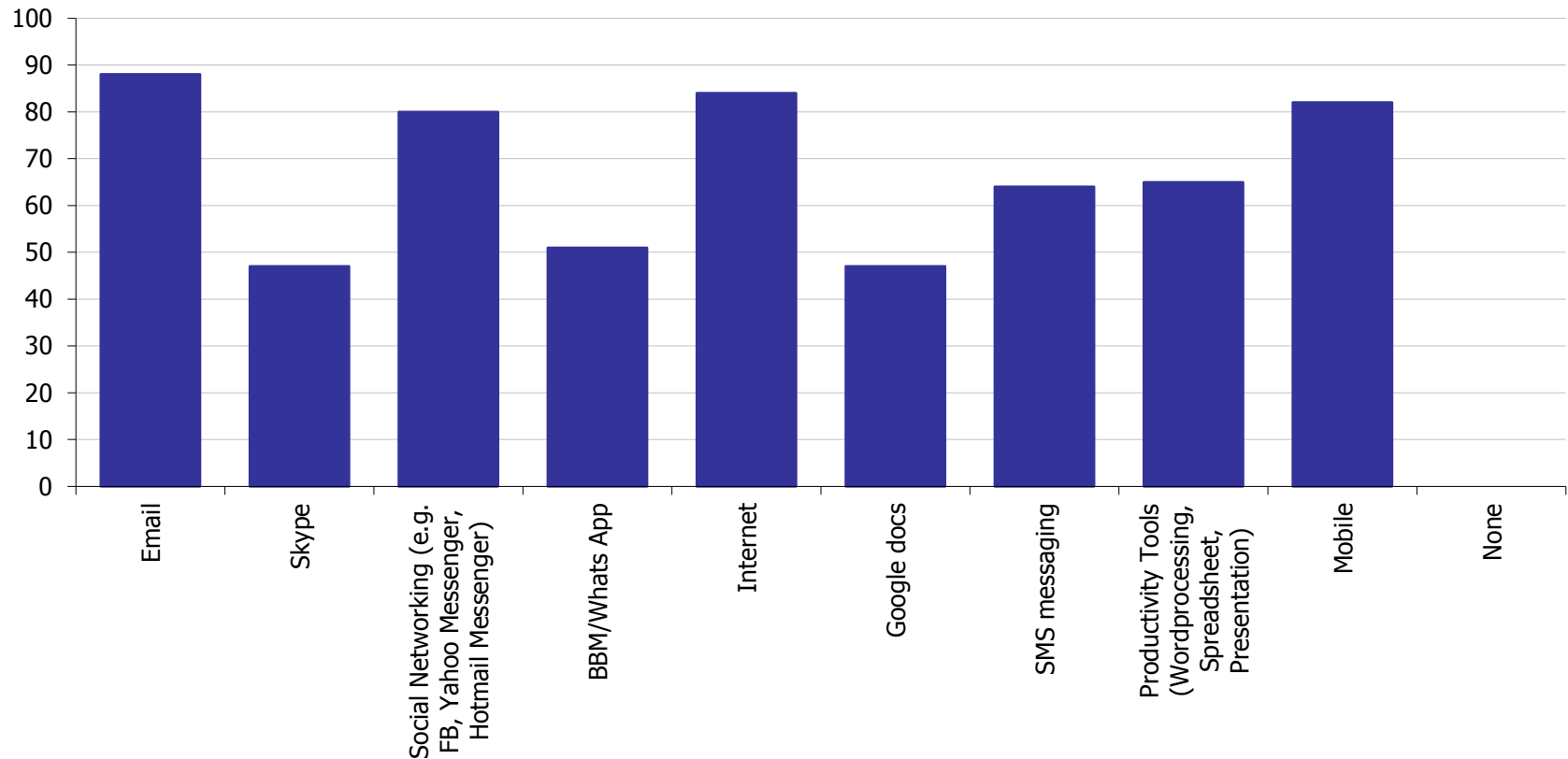


# QUESTION 2



**Do these UTT “digital natives” transfer the plethora of ICT technologies they utilize socially to their academic course of study in a cooperative and collaborative way while at UTT?**

# ICT Technologies students utilize at UTT socially and academically in a cooperative and collaborative way





- It is apparent from the results that the top scorers for collaborative and cooperative work are the **Internet** and **email**.
- These are supported by other technologies such as **Social Networking, Skype and Google Docs**
- However, SMS and BBM messaging ranked low in their choices, which suggests that these ICTs may not be supporting the cooperative and collaborative work at UTT, BEd.

# QUESTION 3



**Do the “Digital Natives” of the UTT Bachelor of Education Programme believe that the use of ICT enhances their learning experiences as they work cooperatively and collaboratively within their courses?**

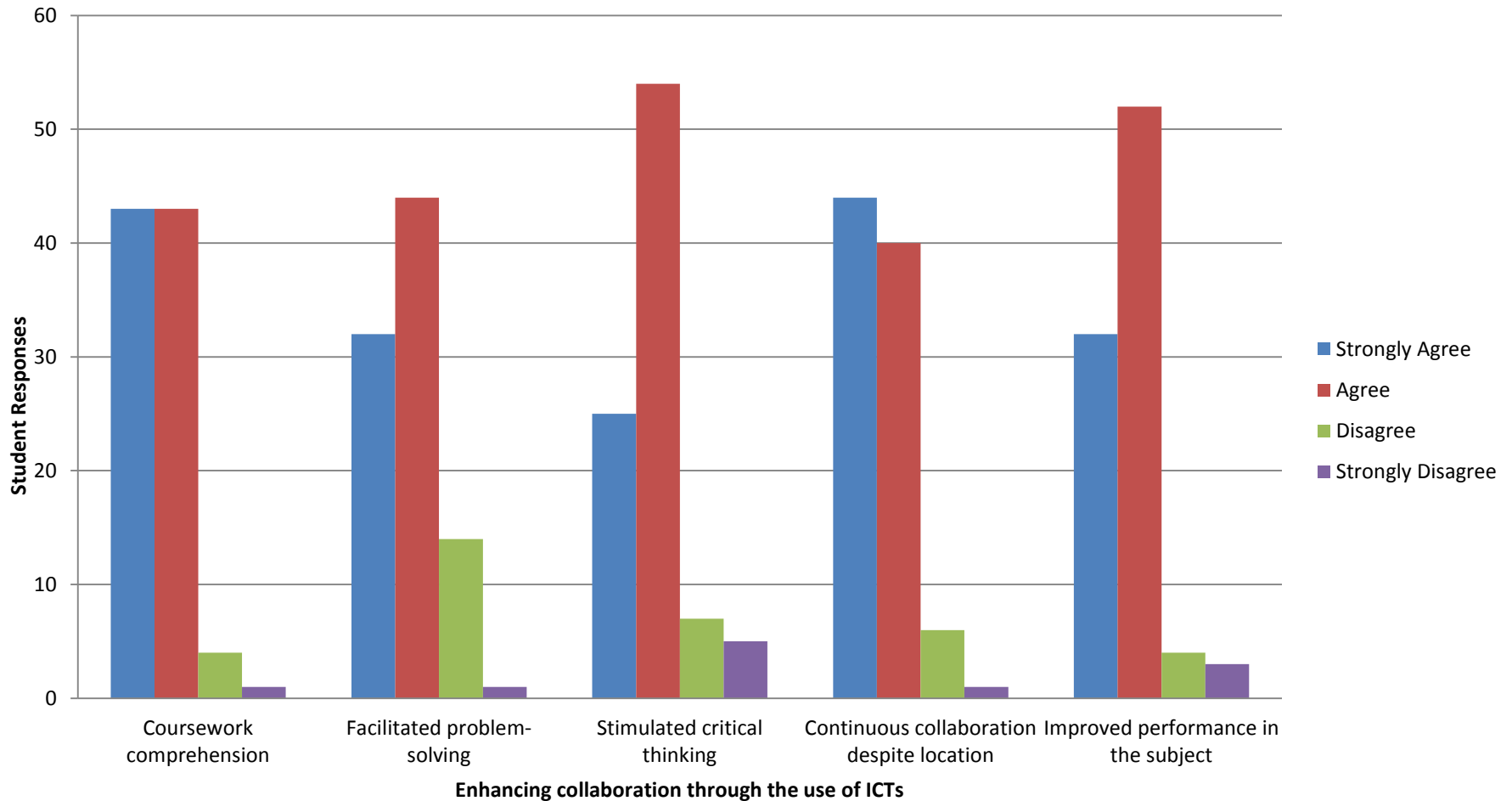


- The data from this question were broken into the following categories:
  - Learning
  - Communication
  - Collaboration
  - Interaction
  - Other

# Learning



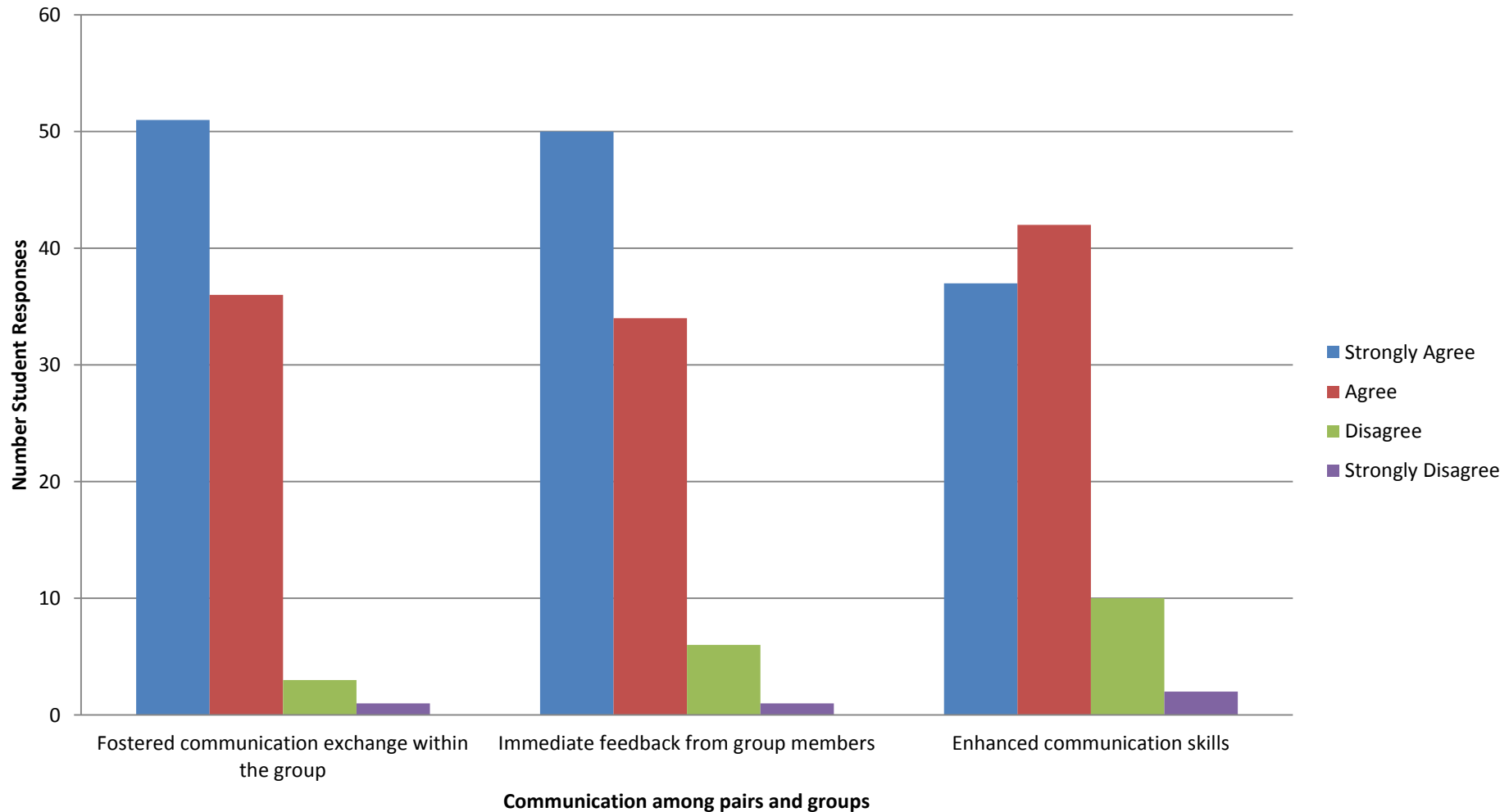
## Using ICT while working in pairs and groups at UTT: Learning



# Communication



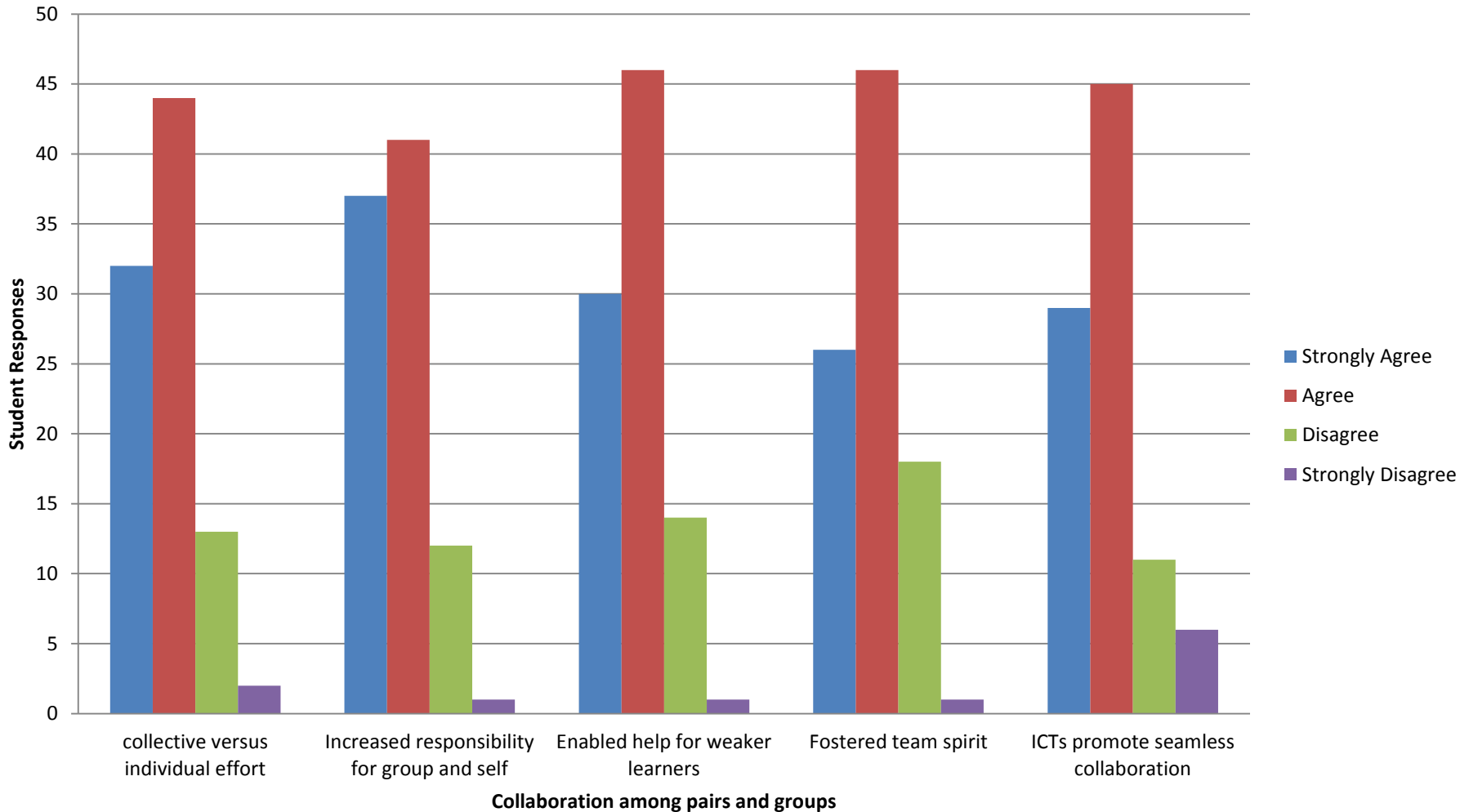
## Using ICTs while working in pairs and groups at UTT: Communication



# Collaboration



## Using ICTs while working in pairs and groups at UTT: Collaboration

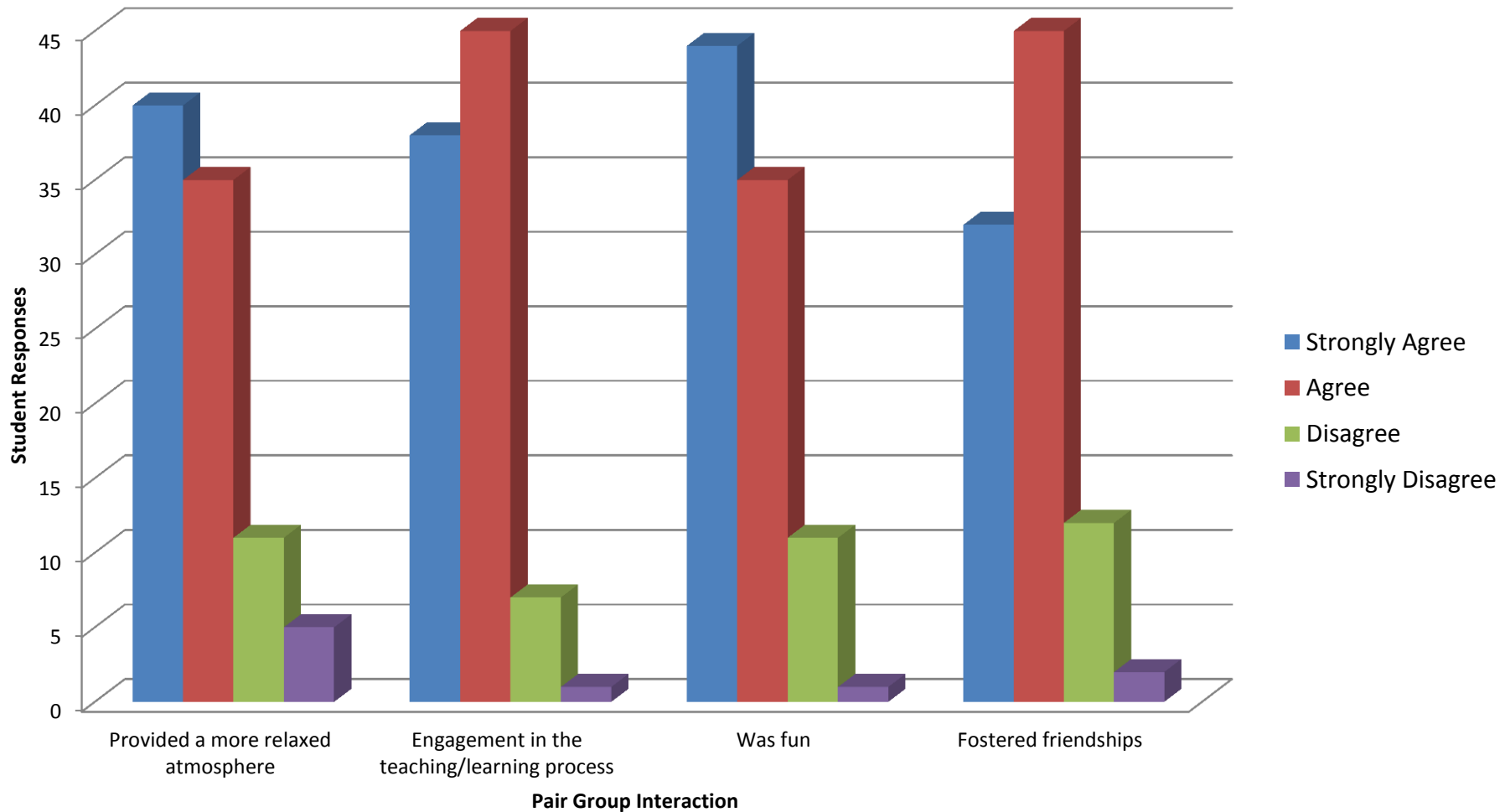




# Interaction



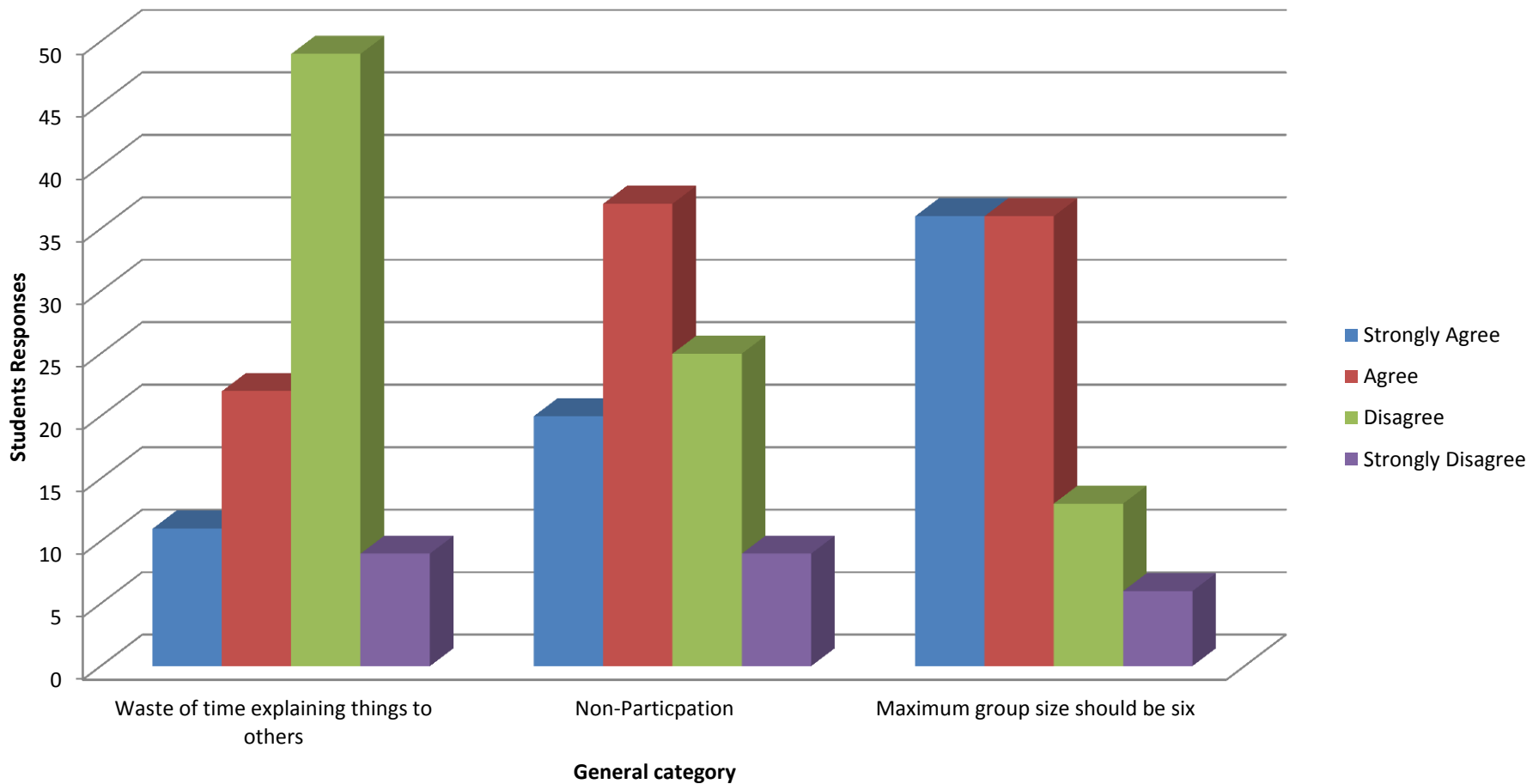
## Using ICTs while working in pairs and groups at UTT: Interaction



# Other



## Using ICTs while working in pairs and groups at UTT: Other



# Summary & Discussion



- There are pre-service “Digital Natives” within the UTT BEd. Programme who fall into the category defined by Prensky (2001).
- This generation of students are comfortable with their ICTs and have been transferring their social ICT skills to their academic course of study.
- Generally students are positively utilizing ICT Collaborative tools to complete group work within their courses.



*The End*

*Thank You*