

Cryptocurrencies For Students

Group 4-88

Gue Jia Jun 4A209 (Leader)

Andriel Cheong 4A201

Xu Jia Jun 4A223

Abstract:

“Cryptocurrencies For Students” is lesson package, which consists of an interactive website, an infographic and a quiz to educate secondary students about cryptocurrencies, helping them learn about these multifaceted virtual currencies. Our website offers an explanation to these aspects:

1. Essentials of cryptocurrencies
2. How cryptocurrencies function
3. Pros and Cons of cryptocurrencies
4. Current and possible future implications of cryptocurrencies on society

Our website also contains these sections:

5. A “Resources” page that links our readers to an infographic, a quiz that we created
6. A “Contacts” page for readers to direct any queries or questions they have to us, including a FAQ section

Introduction

Rationale :

There has been a drastic rise in the price of cryptocurrencies and its number of users over the last few years, indicating its potential economic and social implications on society. Due to its omnipresent usage around the globe, it is imperative for students to understand the importance of people, events, and issues driving cryptocurrencies in the news. Learning about cryptocurrencies will benefit students in staying relevant in the ever-changing workforce and economies of the 21st century

Objectives:

Our objectives are to raise awareness about cryptocurrencies and to develop and produce a lesson package for our target audience to be well-equipped with information regarding cryptocurrencies

Target Audience : Secondary school students in Singapore

Resources created : Website, Infographic and a quiz

(Website link : <https://cheongandriel.wixsite.com/cryptostudent>)

Review

Literature Review:

Dr Garrick Hileman, Senior Research Associate at the Cambridge Centre for Alternative Finance and Michel Rauchs, a Research Assistant at the Cambridge Centre for Alternative Finance have published a April 2017 research paper titled “Global Cryptocurrency Benchmarking Study”. Research was led by the aforementioned parties.

The study gathered survey data from nearly 150 cryptocurrency companies and individuals, and it covers 38 countries from 5 world regions. Some of their key findings are listed below:

- Current number of active users of cryptocurrency wallets is estimated to be between 2.9 - 5.8 million.
- 31% of cryptocurrency companies surveyed are operating across two cryptocurrency industry sectors or more, giving rise to an increasing number of universal cryptocurrency companies
- At least 1,876 people are working full-time in the cryptocurrency industry, and the actual total figure is likely above 2000 when other large mining organisations that did not provide figures are added.

Figure 2: The total cryptocurrency market capitalisation has increased more than 3x since early 2016, reaching nearly \$25 billion in March 2017

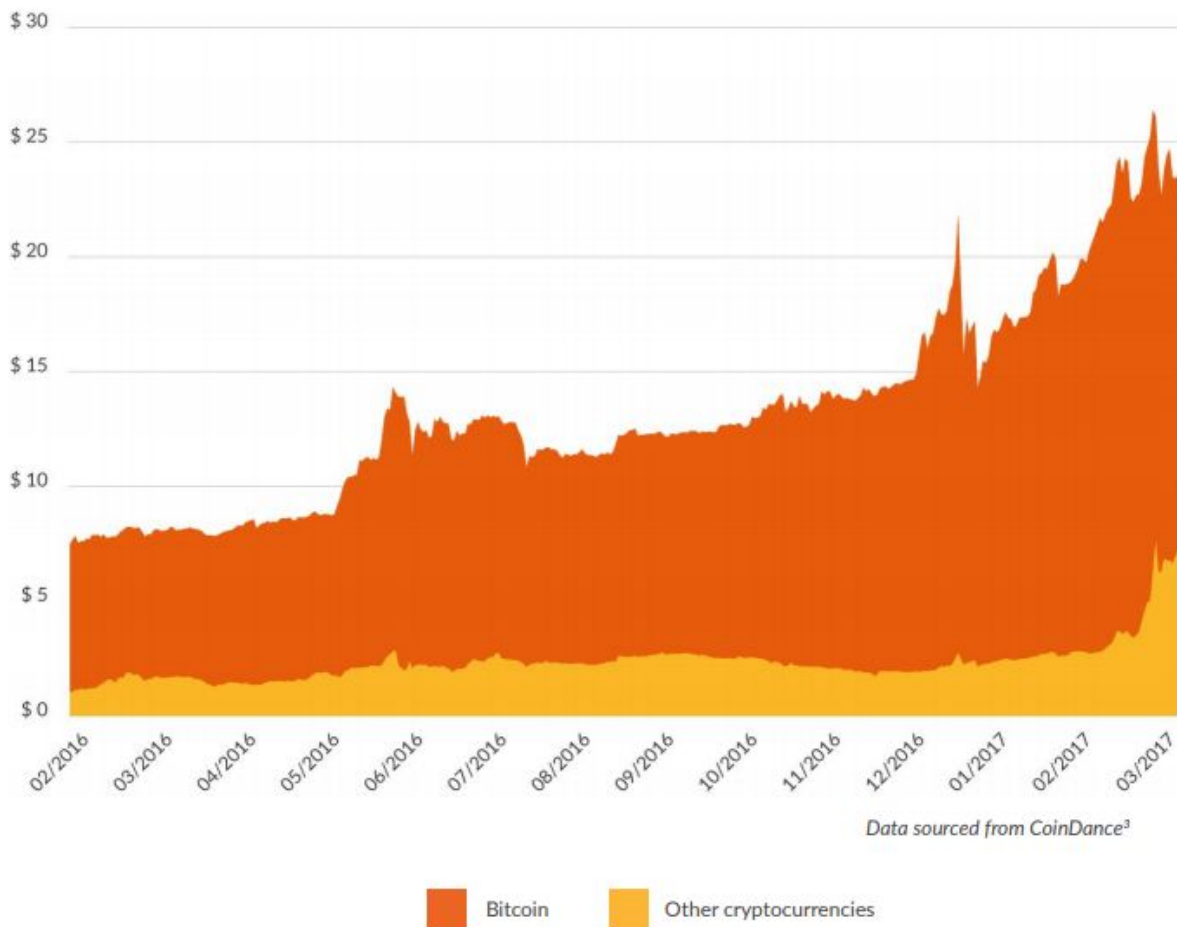


Table 1: Average daily number of transactions for largest cryptocurrencies

	Bitcoin	Ethereum	DASH	Ripple	Monero	Litecoin
Q1 2016	201,595	20,242	1,582	N/A	579	4,453
Q2 2016	221,018	40,895	1,184	N/A	435	5,520
Q3 2016	219,624	45,109	1,549	N/A	1,045	3,432
Q4 2016	261,710	42,908	1,238	N/A	1,598	3,455
January - February 2017	286,419	47,792	1,800	N/A	2,611	3,244

Data sourced from multiple block explorers⁸

Conclusion : There is substantial evidence that cryptocurrencies have gain **notable traction** in the years since its creation. As such, with the **widespread usage** of cryptocurrencies and the **astronomical increment** in their values, it is only **quintessential** for students to learn more about cryptocurrencies, with which the knowledge might prove to be useful in the ever-changing economies of the 21st century

Existing Resources:

Most of the existing resources are not “user-friendly” for amateurs as they make use of complicated and technical terms that lack further explanations and dissections, which a beginner would struggle to comprehend. In addition, several of these resources do not offer an explanation to what students should expect from cryptocurrencies in the future

Methodology

Construction Of Resources:

Construction of website was done on *WIX* and the input of information we collated into it. The construction of the infographic was carried out on *Piktochart*, which contains condensed information obtained from our website.

The use of pictures were from Google Images(with acknowledgements and referencing) and built-in materials.

The information was also acquired from online and print resources, which we have also acknowledged in our resources.

We had also developed a quiz for the users of our website to reaffirm their knowledge after they had used our resources

Needs Analysis: Survey

In order to get a better understanding of the students' awareness of cryptocurrency, we conducted a survey before *Proposal Evaluation* and received responses from 78 students of ages between 13-18 years.

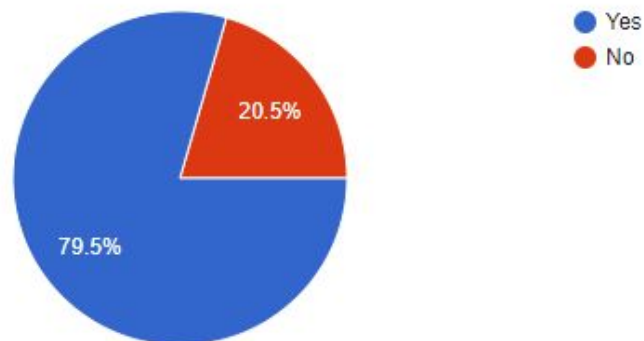
(Survey was conducted and responses alike were collected via Google Forms, respondents were encouraged to share our survey questionnaire to others on multiple platforms)

Below are the results:

About 20% of respondents had not heard of the term “cryptocurrencies”, while 80% had

Have you heard of the term “cryptocurrency”?

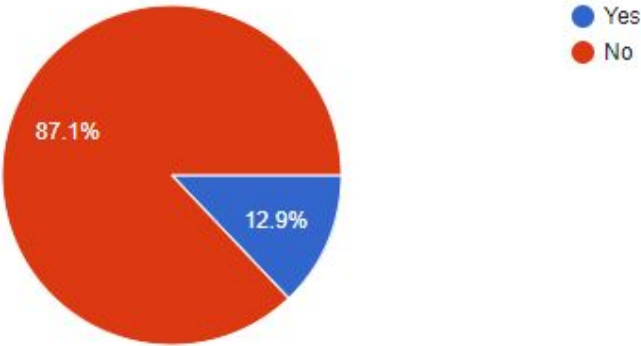
78 responses



Of the 80% who had heard of the term “cryptocurrencies”, a shocking 87% of them did not know how they work

Do you know how cryptocurrency works? (Only answer this question if answer for 1. is “Yes”)

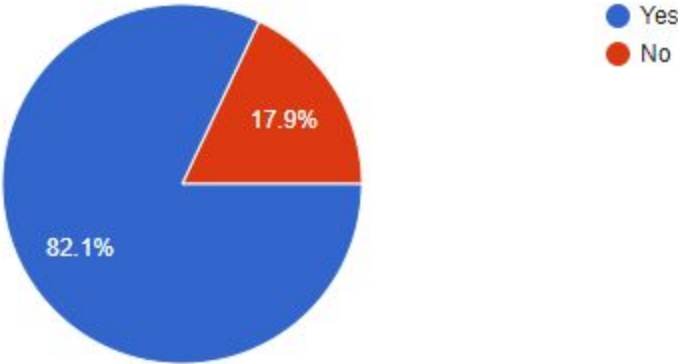
62 responses



82% of them were also highly interested in finding out more about cryptocurrencies

Do you want to know more about cryptocurrency?

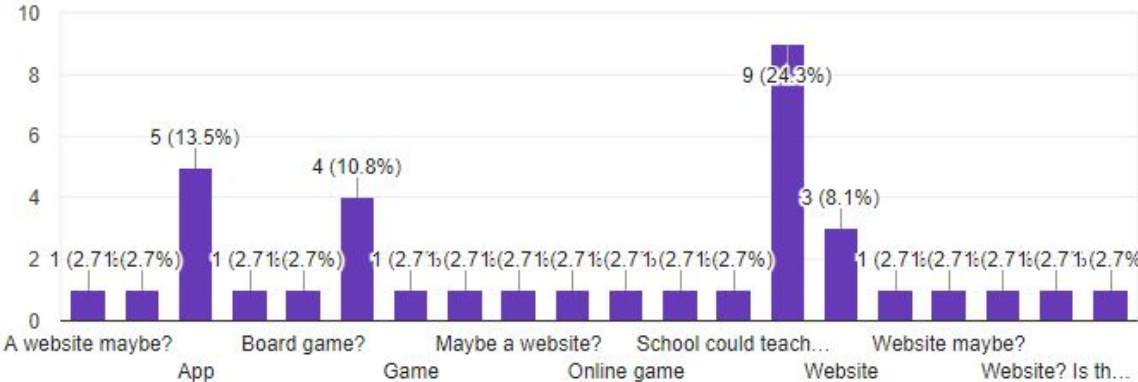
78 responses



The most popular format in which the respondents wanted to learn from was a website

In what format (eg. website, game, etc.) would you like to get a better understanding of cryptocurrency? (Only answer this question if answer for 3. is "Yes")

37 responses



Pilot Test #1(Conducted before Semi-Finals):

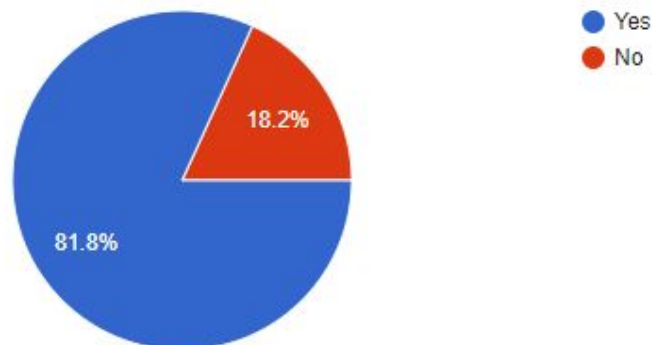
Upon completion of 70% of our products, we administered our first pilot test. The respondents were tasked to utilise our resources and to complete the questionnaires (Pilot test was conducted and responses alike were collected via Google Forms, respondents were encouraged to share our survey questionnaire to others on multiple platforms)

Below are the results:

Out of the 77 respondents, 81.8% found our website useful

Did you find our website useful?

77 responses



Based on the responses we obtained, respondents liked our website for its overall **aesthetics, simplicity** and **ease of navigation**, which have assisted them in learning more about cryptocurrencies.

Based on the responses we obtained, several suggested that we could implement a **quiz**, an **infographic** and a **FAQ** section, all of which we implemented

Pilot Test #2(Conducted after Semi-Finals, before Finals):

After completion of our final products, we conducted our final pilot test. The respondents were tasked to utilise our resources and to complete the questionnaires.

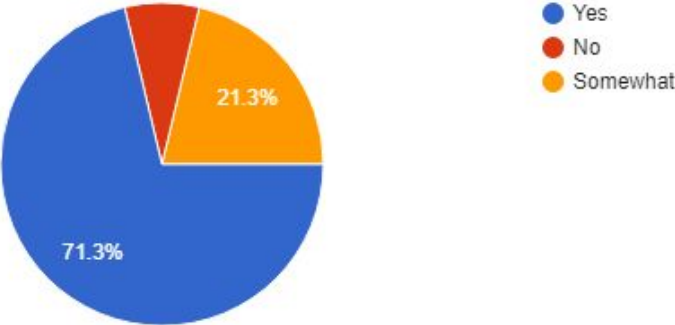
(Pilot test was conducted and responses alike were collected via Google Forms, respondents were encouraged to share our survey questionnaire to others on multiple platforms)

Below are the results:

Out of the 94 responses we acquired, **71.3%** of the respondents found that our website was **useful** for them to learn about cryptocurrencies while another **21.3%** of respondents found that it was **somewhat useful**

Is our website useful in helping you understand more about cryptocurrencies?

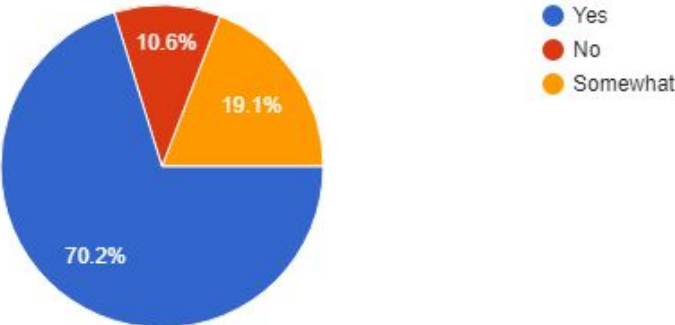
94 responses



70.2% of respondents found our website to be **aesthetically pleasing** while **19.1%** found our website to be aesthetically pleasing to a **moderate extent**.

Is our website's design aesthetically pleasing?

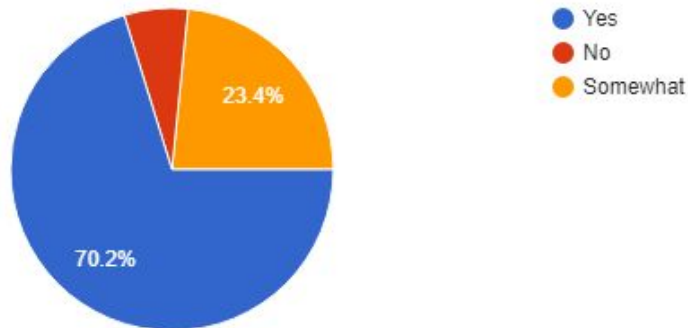
94 responses



70.2% of the respondents agreed that our site had **good website navigation** while **23.4%** found it to be **moderately easy** to navigate around our website

Is our website easy to navigate around?

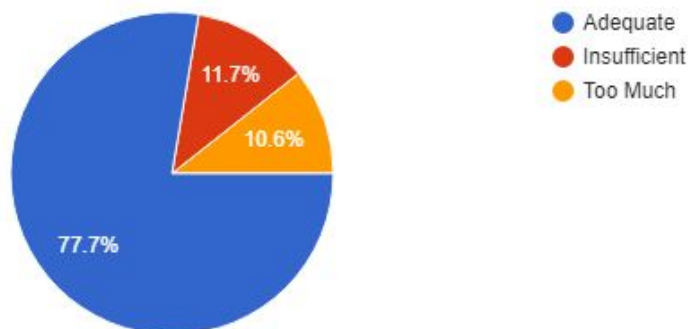
94 responses



77.7% of the respondents found that our website had **sufficient information**, 10.6% found that there was too much whilst 11.7% found that there was too little.

Is there sufficient information on the website?

94 responses



Based on the responses we obtained, respondents liked our website for its overall **aesthetics** and **simplicity**, and had noted that we had implemented a quiz and a FAQ section that they had previously suggested

Based on the responses we obtained, several suggested that our website was a little too wordy, which we have looked into and edited our website accordingly

Conclusion: Our website was **effective** and **efficient** in imparting the information on the website to our users, with multiple elements such as the **infographic** and the **quiz**, including the **aesthetics, simplicity and the ease of navigation** of our site that have also facilitated the learning process

Outcome and Discussion

Final Outcome:

An interactive website that helps students develop their understanding in cryptocurrency through information presented in layman's terms and infographics, accompanied by quizzes to test their understanding. This will allow students to learn more about cryptocurrencies in a simple and interesting way at their own pace and also allow them to see how well they have understood the topic

Limitations:

Cryptocurrencies being a digital and virtual currency, is complicated and requires extensive training as well as experience in order to gain full insight to cryptocurrencies. Our resources are not able to cover all aspects of this topic as it requires students to explore and experience it themselves, and could only act as an introduction to the topic of cryptocurrency and help them to gain interest in it.

Possible further works:

We strongly feel that cryptocurrencies would be a important aspect of our daily lives in the future and thus, the topic should be added into the school curriculum in order for students to learn more about it, thus, we feel that a Teacher's section that allows teachers to access resources about cryptocurrency is necessary so that teachers would

be able to access teaching materials and allow them to be better equipped with the skills needed in order to educate students on the topic.

Conclusion

Skills acquired :

We have the acquired the skills to digest, understand, consolidate the information we obtained and to condense it from complicate terms to simple and concise language. We have also learnt how to fact-check our information and data from multiple sources to ensure factual accuracy. We have also learnt how to dissolve conflicts and tensions amongst group members

Challenges:

We had trouble understanding online materials during the start due to our unfamiliarity towards cryptocurrencies. There were also conflicts amongst group members due to disagreements. There was also a slight rush to complete project due to insufficient time and improper time management

Acknowledgements

Regarding the success of our project, we would like to thank:

- Mr Eddie Lau, for giving us valuable feedback and suggestions to help us improve our project
- The participants of the surveys who had taken their time to complete the questions in the surveys

References

Kelleher, J. (2018). Bitcoin. [online] Investopedia. Available at: <https://www.investopedia.com/terms/b/bitcoin.asp> [Accessed 8 Aug. 2018].

reddit. (2018). r/Bitcoin - Where can I find this Bitcoin logo as a transparent PNG?. [online] Available at: https://www.reddit.com/r/Bitcoin/comments/1vcb5q/where_can_i_find_this_bitcoin_logo_as_a/ [Accessed 8 Aug. 2018].

Commons.wikimedia.org. (2018). File:Ethereum logo 2014.svg - Wikimedia Commons. [online] Available at: https://commons.wikimedia.org/wiki/File:Ethereum_logo_2014.svg [Accessed 8 Aug. 2018].

reddit. (2018). Dogecoin Transparent PNG Archive • r/dogecoin. [online] Available at: https://www.reddit.com/r/dogecoin/comments/1zjmw/dogecoin_transparent_png_archive/ [Accessed 8 Aug. 2018].

Anon, (2018). [online] Available at: <https://www.elfe-shop.com/collections/litecoin> [Accessed 8 Aug. 2018].

siudy.net. (2018). Currency logo vector icon stock symbol and industrial gears u photo symbol bitcoin currency logo and industrial gears u stock photo wales map crypto vector jpg - siudy.net. [online] Available at: <http://siudy.net/bitcoin-currency-logo/currency-logo-vector-icon-stock-symbol-and-industrial-gears-u-photo-symbol-bitcoin-currency-logo-and-industrial-gears-u-stock-photo-wales-map-crypto-vector-jpg/> [Accessed 8 Aug. 2018].

Buybitcoinworldwide.com. (2018). #1 Simple Bitcoin Price History Chart (Since 2009). [online] Available at: <https://www.buybitcoinworldwide.com/price/> [Accessed 8 Aug. 2018].

E-Money Chat. (2018). Will Bitcoin value continue to rise in 2018?. [online] Available at: <https://www.emchat.net/emchat/2017/12/1/will-bitcoin-value-continue-to-rise-in-2018-> [Accessed 8 Aug. 2018].

Kevin Hoyt. (2018). Blockchain Vocabulary. [online] Available at: <https://www.kevinhoyt.com/2017/04/11/blockchain-vocabulary/> [Accessed 8 Aug. 2018].

Play.google.com. (2018). [online] Available at: <https://play.google.com/store/apps/details?id=de.schildbach.wallet&hl=en> [Accessed 8 Aug. 2018].

Castillo, M. (2018). This high school dropout who invested in bitcoin at \$12 is now a millionaire at 18. [online] CNBC. Available at: <https://www.cnbc.com/2017/06/20/bitcoin-millionaire-erik-finman-says-going-to-college-isnt-worth-it.html> [Accessed 8 Aug. 2018].

Lifehacker.com. (2018). [online] Available at: <https://lifehacker.com/why-bitcoin-s-price-is-so-volatile-1822143846> [Accessed 8 Aug. 2018].

Business 2 Community. (2018). How Bitcoin is Changing the Global Economy. [online] Available at: <https://www.business2community.com/finance/bitcoin-changing-global-economy-01981766> [Accessed 8 Aug. 2018].

Hacker Noon. (2018). The Cryptocurrency Trading Bible – Hacker Noon. [online] Available at: <https://hackernoon.com/the-cryptocurrency-trading-bible-43d0c57e3fe6> [Accessed 8 Aug. 2018].

BitStickers. (2018). Bitcoin Accepted Here - BitStickers. [online] Available at: <https://bitstickers.net/bitcoin-accepted-here/> [Accessed 9 Aug. 2018].

Twitter.com. (2018). Ethereum (@ethereum) on Twitter. [online] Available at: <https://twitter.com/ethereum> [Accessed 9 Aug. 2018].

Crypto Disrupt. (2018). Litecoin - \$99 Million in Two Seconds and 40 Cents - Crypto Disrupt. [online] Available at: <https://cryptodisrupt.com/litecoin-99-million-in-two-seconds-and-40-cents/> [Accessed 9 Aug. 2018].

Jonathan Landrum Jr., A. (2018). Review: 50 Cent shows rust on 'Animal Ambition'. [online] New Pittsburgh Courier. Available at: <https://newpittsburghcourieronline.com/2014/06/04/review-50-cent-shows-rust-on-animal-ambition/> [Accessed 9 Aug. 2018].

Nypost.com. (2018). [online] Available at: <https://nypost.com/2018/02/01/this-19-year-old-bitcoin-millionaire-has-some-advice-for-the-rest-of-us/> [Accessed 9 Aug. 2018].

NewsComAu. (2018). 'I lost a small fortune'. [online] Available at: <https://www.news.com.au/finance/money/investing/i-lost-a-small-fortune-speculator-loses-9-million-after-pouring-life-savings-into-cryptocurrency/news-story/59c6c6eb7165fdd4f9a74d6dab2c3748> [Accessed 9 Aug. 2018].

En.wikipedia.org. (2018). Legality of bitcoin by country or territory. [online] Available at: https://en.wikipedia.org/wiki/Legality_of_bitcoin_by_country_or_territory [Accessed 9 Aug. 2018].

Businessfirstfamily.com. (2018). [online] Available at:

<https://businessfirstfamily.com/wp-content/uploads/2017/07/business-objectives.jpg>

Edkentmedia.com. (2018). [online] Available at:

https://edkentmedia.com/wp-content/uploads/2017/03/DefiningYourTargetAudience_EdkentMedia.jpg

Tog.ie. (2018). [online] Available at:

<https://www.tog.ie/wp-content/uploads/2012/07/graph-going-up.jpg> [Accessed 12 Aug. 2018]

I0.wp.com. (2018). [online] Available at:

<https://i0.wp.com/media.premiumtimesng.com/wp-content/files/sites/2/2017/04/Innovation.jpg> [Accessed 12 Aug. 2018]

I2.wp.com. (2018). [online] Available at:

https://i2.wp.com/onwardmovement.com/wp-content/uploads/2015/05/note-34670_1280.png [Accessed 12 Aug. 2018]

Cdn.lynda.com. (2018). [online] Available at:

<https://cdn.lynda.com/course/502101/502101-636180003375507870-16x9.jpg> [Accessed 12 Aug. 2018]

ProProfs.com. (2018). [online] Available at:

https://media.proprofs.com/images/QM/user_images/1826446/1501568996.jpg [Accessed 12 Aug. 2018]