



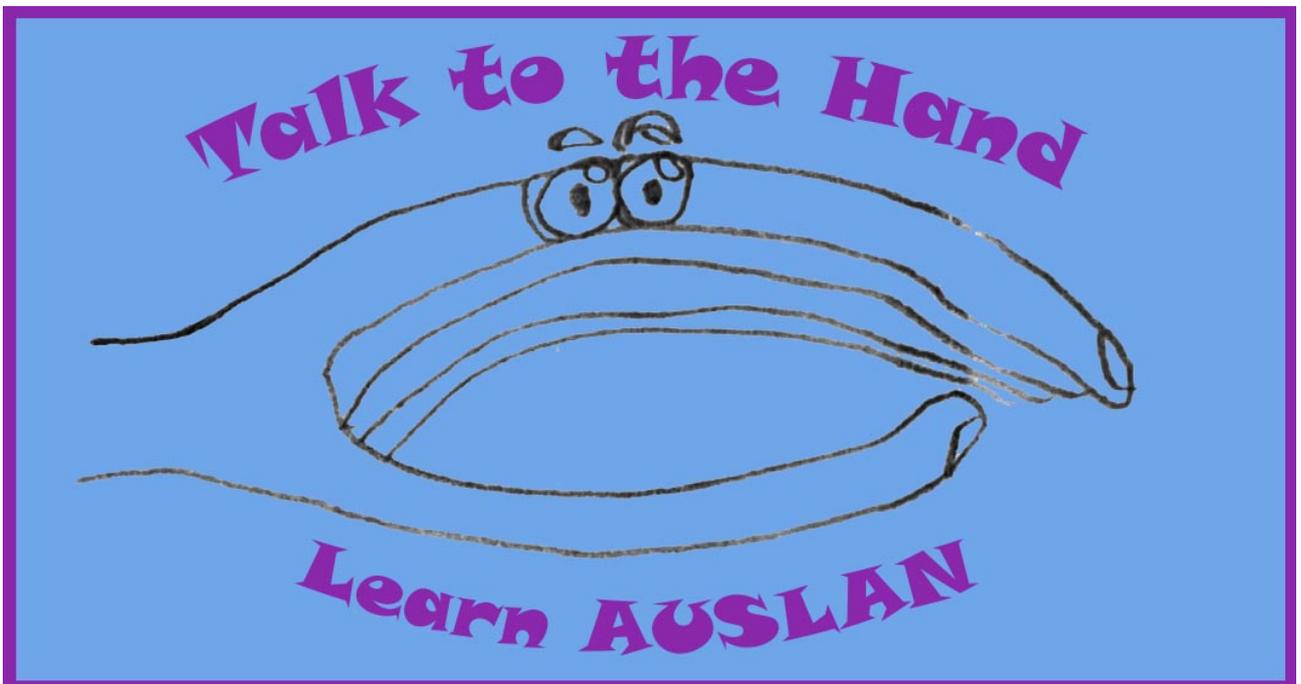
SEARCH FOR THE NEXT TECH GIRL SUPERHERO

BUSINESS PLAN

Little Butterflies

Talk to the Hand – Learn
AUSLAN

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Section 1: Product Description

Understanding your product:

Our team, Little Butterflies, consists of three home schooled girls from the Central Coast. Amelia is 12 years old and loves engineering and coding. Addison is 8 years old and loves talking, so marketing is her strength. Jazzy is 12 years old and loves design so designing the user interface is her strength. The girls have worked on previous projects together and find they each compliment one another's strengths and can help each other develop other areas.

For this year's Tech Girls are Superhero's competition the team have decided to address the issue of communication barriers for individuals of the deaf community. This issue addresses two categories from the United Nations' Sustainable Development Goals; Equality and Education. It is a common belief throughout the deaf community that deafness is not a disability but rather simply a language barrier. If all Australians knew AUSLAN then there would be no barriers to communication and all that that affects. Statistics show that approx. 99.95% of the Australian population do not know one of our nationally recognized native languages – AUSLAN. The app Talk to the Hand – learn AUSLAN aims to increase the number of AUSLAN users and therefore reduce or remove the communication barriers.

Amelia and Addison's eldest brother is deaf and they know firsthand how difficult and frustrating it can be for their brother and those he meets to communicate. He always needs a family member who can sign available to interpret for him. Both Amelia and Addison learnt to sign before they could talk and it has always been a part of their life. Friends always say they would love to learn AUSLAN and so their family host a weekly signing class. But this isn't enough. To truly learn a language, you need to be able to immerse yourself in the language which means having daily access and practice. Through the app Talk to the Hand – Learn AUSLAN, individuals can not only learn the signs, but practice through games and songs and test themselves through quizzes o keep themselves motivated.

One of the team's greatest strengths is that they all know AUSLAN and are all avid users of mobile games. With the educational philosophy of learn through play resurging the team have a target market of children to encourage the learning of AUSLAN through playing on a device. Amelia has had previous experience building an app using app inventor and so will be able to assist the other two team members in developing the app. All three girls have had experience in presentations and so feel confident in their communication approach. Addison has had previous small business experience and therefore understands how to target her market audience. The team have accessible resources such as a computer with internet access and android mobile devices. Amelia and Addison, through their brother, are also actively involved in the local deaf community and therefore have channels of communication to spread the word about their app.

The team do have some limitations such as limited experience with filming and editing. This will impact their ability to make quality videos for their signing videos. The team also have restricted financial resources to develop these skills or outsource the job. An alternative is to use the videos from another source, AUSLAN Signbank



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(www.auslan.org.au), which is permissible under the license of the Creative Commons BY-NC-ND 4.0. There is also a rapid increase of AUSLAN apps becoming available however, the team feel that their app will capture the best elements of all apps.

Essentially, the initial prototype version of the app will capture the teams goal of developing an app that will allow users to learn AUSLAN through live videos, games, songs and quizzes. Future versions of the app will include additional categories, songs, games and copywrite owned videos.

100-word description:

AUSLAN stands for AUStralian Sign LANguage. It is one of our native languages. Our app provides a fun and easy way to learn AUSLAN for everyone who wants to learn. It has videos, pictures, quizzes, songs and games, which are easy to access and use. The app is for people who want to learn AUSLAN, but don't have time for classes, kids that may not understand a class, and the deaf community. The app starts with 6 categories: Alphabet, Greetings, Colours, Animals, People, and Families. By learning AUSLAN not only will you be learning one of our native languages but you will also be reducing the communication barrier between the deaf and hearing communities.



Section 2: Potential Market & Research

Competitor Analysis:

In the past decade, there has been a steady increase of AUSLAN apps available for download as the market for smartphones increases. These competitor AUSLAN apps range in price from free lite versions through to more expensive apps at \$39.99. There are many differentiating features between apps including;

- Presentation of sign; from animated, to 2D drawing to video. The animated and 2D drawing apps affect accuracy of interpretation of the sign.
- Categories; some apps only have one category others have many, while others are not listed in categories but rather in alphabetical order of word.
- Element of fun; some apps include games or songs while others simply show a video or animation of the signed word.
- Ease of Use; most apps were intuitive for use although the use of written words even in the apps aimed at younger children would inhibit the independent use of apps by younger pre-literate users.

Talk to the Hand – Learn AUSLAN will incorporate the best elements of all competitor apps with additional innovative ideas from the team. It will include both live videos as well as 2D pictures for the learning of signs. The initial download will include six categories; alphabet, greetings, family, people, farm animals and colours. It will include games and songs for practice and quizzes for motivation to continually learn to sign. It will also include the option for in-app purchases of additional categories, songs and games.

For further competitor analysis please refer to the competitor analysis in the appendix.

Trend Research:

Based on the 2011 census there is estimated to be 9723 AUSLAN users across Australia and this number is expected to increase in the 2016 census results (The Distribution of New South Wales Sign Language Users Analysis from the 2001, 2006 And 2011 Census, Prepared for the New South Wales Deaf Society by Dr Louisa Willoughby with the assistance of Ms Catherine Cook, 2013). Based on the Australian population figures, this indicates a staggering 99.95% of the Australian population that don't know one of their nationally recognized native languages - AUSLAN.

Further to this, over 90% of babies born with a hearing loss are born to hearing families. Barriers to communication, as families attempt to learn and then teach their deaf child to communicate through AUSLAN, not only impair the child's language development but extend to impairment in overall cognitive development. This overall impairment is noted to reduce as language skills develop however this process varies from child to child and access to early intervention supports. This same cognitive developmental delay is seldom



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overserved in deaf children born to deaf signing parents. (You and Your Deaf Child: A Self-help Guide for Parents of Deaf and Hard of Hearing Children, John W Adams, 1997).

While it is acknowledged that there are many approaches to language acquisition for deaf and hard of hearing individuals, the previous research would suggest that if more of the Australian population learnt AUSLAN, as one of our Native Languages, then hearing impaired children would have the same opportunities and expected developmental outcomes as hearing children.

Consumer research:

For our consumer research, we have employed the techniques of surveys, interviews, polling and customer prototype testing groups. Based on our research we learnt that consumers were more likely to use an educational app if there was a game element involved (37/40 surveyed individuals). Of those surveyed 29 participants had previously used a technological device to learn a language. From this group, 26/29 preferred to learn using programs that allowed not only for demonstration of a language but also included methods for practice and testing their own knowledge.

Interviews with key deaf community organizations indicated the benefit of an app that appealed to a broad age group but in particular families of young children and their extended families.

Through our prototype test group (10 individuals) we could determine best colour scheme, additional suggested features such as conversational interpreting videos and that the use of pictures rather than words allowed for ease of independent use for pre-literate individuals.

Target Market:

The target market for this app is essentially the entire Australian population, as it provides an opportunity to learn one of our native languages. This market size is reduced however by key factors such as access and ability to use a mobile device with internet access. It is further reduced to those who own an android device, due to the current platform of the app.

Predominantly this app will appeal to children and families wanting to learn AUSLAN due to either personal interest or the motivation of wanting to communicate with a signing deaf family member or friend.

Potential Market Size:

With an estimated 6500 signing deaf individuals within Australia (2011 Census Data), the number of family and friends motivated to learn sign to ease communication barriers, is infinite. Based on the 2016 census results (<http://www.censusdata.abs.gov.au>) relating to age there are 19 449 336 Australians between the age of 4-70 years of age that could potential meet the requirements of ability to use a mobile device and either have a personal interest or be the family member or friends of a deaf individual.



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According to data insights firm Kantar, in the final quarter of 2016, 52.3% of smart phone purchases were for devices running the android operating system (<https://www.lifehacker.com.au/2017/02/android-lost-market-share-in-australia-in-late-2016/> , 2017). In a study conducted by Deloitte 94% of Australian 18-24-year old's own a smartphone (Mobile Consumer Survey 2016; The Australian Cut. Hyper connectivity: Clever consumption, 2016) Considering the restriction to individuals with an android device, in this age bracket alone, that would indicate a massive 770 000 potential users of the app Talk to the Hand - Learn AUSLAN.

Languages are best mastered with continual use and real world practice. Through the app Talk to the Hand – Learn AUSLAN, users have continual access to learning, practicing and testing themselves via one simple free download. This is as opposed to attending a weekly class for 10weeks or a 2-day weekend course in AUSLAN at a cost in excess of \$180 (Deaf Society NSW course fees, 2017)



Section 3: Finances

Budget:

The following items are the projected fixed and variable costs associated with the development and marketing of the app; Talk to the Hand – Learn AUSLAN

- **Fixed costs:**

- Software developer approximately 40hrs @ \$30/hr = \$1200
- Software designer approximately 10hrs @ \$20/hr = \$200
- Internet access - \$70 month for 3 months = \$210
- Computer - \$1000
- Mobile device - \$450
- Professional filming and editing of AUSLAN videos 25hrs @ \$40/hr = \$1000

- **FIXED COST TOTAL = \$4060**

- **Variable costs:**

- Printing of promotional material for launch= \$300
- Event Stall holder fees – varies
- Marketing personnel for launch 8hrs @ \$20/hr = \$160

- **VARIABLE COST TOTAL = \$460-\$550**

Business Model

Initially the team identified that they would like to be a for profit commercial entity that made charitable donations based on profit to charitable and not-for-profit organization with a common cause. Due to the sourcing of videos from AUSLAN Signbank, this option was not possible. The use of videos from AUSLAN Signbank is permissible under the creative commons license BY-NC-ND 4.0 which states in the licensing terms that ‘Noncommercial — You may not use the material for commercial purposes.’

The team therefore had to become creative with their revenue raising tactics. While the initial download of the app is free, in-app purchases of additional categories, songs and games could be made by watching an in-app advertisement. Revenue for the app is therefore received not from the consumer but rather the advertisement company. In addition, the team also considered regular ads throughout the use of the app but decided against this option as they considered that “everyone hates games with ads”.



Product Pricing

Due to the copywrite limitations on revenue earning for the app, our team have opted to explore the concept of both In App Purchases and Advertising. Utilising the services of advertisement company Millennial Media revenue will be made for the app via the eCPM which offers a set price per 1000 views of an advertisement. Based on the advertisement itself this set price will have variations of between \$0.50 - \$0.73 per 1000 views. While this price may seem minimal, when consideration of the enormity of languages and therefore potential categories and the large target audience this amount will sum exponentially



Section 4: Marketing

Branding & Promotion

- **Messaging** – Talk to the Hand – Learn AUSLAN, an enjoyable and exciting educational app that allows users to learn AUSLAN (Australian Sign Language) through live videos, songs and games.
- **Channels** –
 - Promotional flyers distributed to the offices of the Deaf society of NSW, Australian Hearing Services and Royal Institute for Deaf & Blind Children to access shared consumers,
 - social media networks,
 - local schools for hearing impaired and children with a disability,
 - hold a stall at the Sydney Parents of Deaf Children Deaf festival to display and demonstrate our app.
- **List the actions you will take to launch your product or service** – We have designed a promotional flyer that can be distributed (see appendix), we will apply to host a stall at the Parents of Deaf Children 2017 Deaf Festival and the Central Coast Kids Day Out where we will be able to display and demonstrate our product.
- **How will you bring the product or service to the market** – The app will be made available through the google play store
- **How do you plan to grow the number of users over time** – We plan to build our app to make it compatible for Apple devices and therefore make it available in the App Store.

Platforms

Currently Talk to Hand – Learn AUSLAN is only available on android devices but we intend to grow our product and make an Apple compatible version

Launch

Every year the Parents of Deaf Children organization host a deaf festival in Sydney celebrating and promoting all things relating to hearing impairment. We have applied to hold a stall at this year's event in October 2017. Our stall will consist of information regarding our app, such as the inspiration, the aims and most importantly, how to download it. We also planned to have several devices available for people to trial the app while at the festival. This will be our primary launch.

Following this, we have also applied for a stall at the 2017 Central Coast Kids Day out to be held in November at Mt Penang Gardens. We planned to set up a stall as for the Sydney Deaf festival.

Further to this we plan to provide informational flyers to the offices of Australian hearing, Deaf Society of NSW and Royal Institute for Deaf & Blind Children for distribution to shared consumers.



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We also plan to promote our app through social media networks relating to disability such as Central Coast Disability Network Facebook group and Mum's Connect Facebook group. As members of our local homeschool group we also plan to promote our app through our group's social media page as an opportunity for others to learn AUSLAN as a part of their everyday learning.

Growth/Future:

Our App, Talk to The Hand – Learn AUSLAN is essentially an educational language app. As languages are so HUGE the growth possibilities for this app are endless. Future developments for the app will include additional categories, games and songs. There will also be a new menu option of conversational interpreting practice through videos that users will watch and then need to interpret into English text.

Out of the prototype phase the app will have greater memory capacity reducing the limitations on screens, categories, games and songs.

At present revenue for the app is limited by the license under the Creative Commons BY-NC-ND 4.0. With financial investment and resources the team would like to film their own signing videos for use within the app, therefore removing any non-commercial copywrite issues and allowing for a profit to be made.

The team would also like to further their technological engineering knowledge and application as well as their programming abilities so that future versions of the app could include gesture recognition software. This additional feature would allow for a unique AUSLAN language development method such that an individual could be ask to sign a given word, and then utilizing the devices camera could capture themselves signing the word. This would allow for mastering of accuracy of handshape, body position and facial expression.

Finally, the team would also like to make the app compatible for apple devices thereby increasing the potential market size.



APPENDIX

SKILLS MATRIX

Role names	Project Management	Research skills	Design	Document business plan	Pitch & demo presentation	Marketing & branding	Budgets & finance	AppInventor and coding
Amelia	4	3	3	2	2	1	2	4
Addison	1	2	2	1	2	3	0	1
Jasmine	3	3	3	2	2	3	1	2

SCORING

0 - Need not have knowledge

1 - Should have basic knowledge

2 - Should do with support

3 - Should have knowledge & do independently

4 - Should be good in theory and practical and can train others

SWOT ANALYSIS

<p>STRENGTHS</p> <ul style="list-style-type: none"> • All team members have AUSLAN skills • Experience with the supports available to the deaf community • Understanding and experience of barriers to communication • Team have worked well together on other projects • Excellent coding skills • Communication skills developed through home schooling • Understanding of app appeal to variety of ages • Real estate cost is low 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Lack of experience with running a business • Limited knowledge about and resources for how to best video the signing • Not all team members have coding skills or knowledge of app development capabilities • Only knowledge of app development for android devices
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Increasing availability of mobile appliances • Young people like to use apps • The educational philosophy of Learn through play is resurging with increased reliance of technological devices for learning • Mobile web browser eliminates need to download app 	<p>THREATS</p> <ul style="list-style-type: none"> • Other apps are rapidly being developed • Users expect low cost or free apps • No current financial support • Android v IOS?? • Google Play store has control over the distribution



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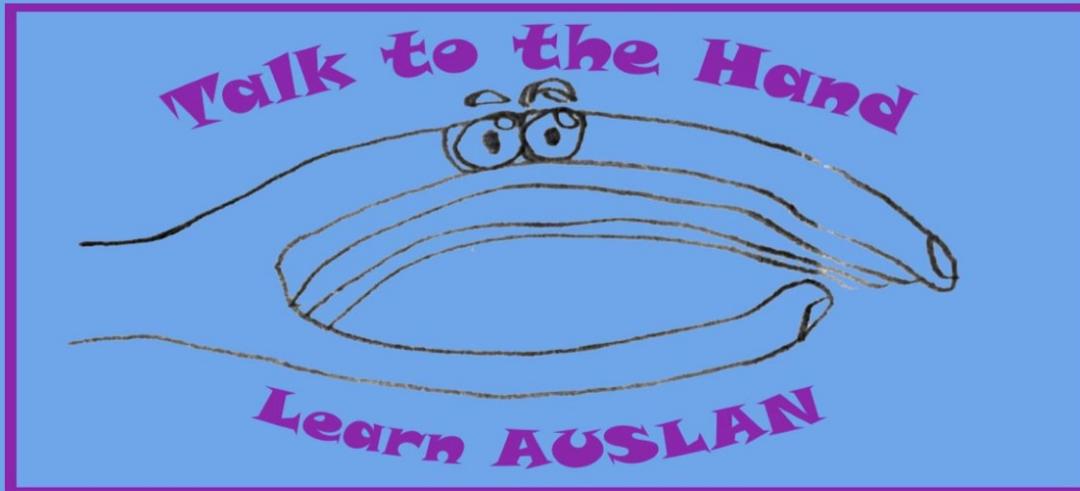
Competitor Analysis

Features/Competitor	Kids 4 Sign	Key Word Sign Australi	RIDBC AUSLAN Tutor	Signs and sounds	You can Sign	Learn AUSLAN
Price	\$4.49 per category	\$39.99	Free – lite \$20	Free	Free - lite	Free
Platform	Apple	Apple	Android and apple	Android	Android	Android
Categories	One category per app	Key words	Keyword XXX cat	Lots	By search	By lessons
Target Market	Children	Adults for child	Adult 4 child, old child	child	Adult / older child	Adult/child
Demonstration style	Video and animation	animate	video	animations	2D images	videos
Ease of navigation	Use of words	Alphabet order	Get lost in sections	By category	Need to spell word	Follow lessons
In-app purchases	No	No	No	No	No	No
Additional Features	Games	Just signs	Just signs	Animation cute & sound FX	Just 2D images	Just lessons



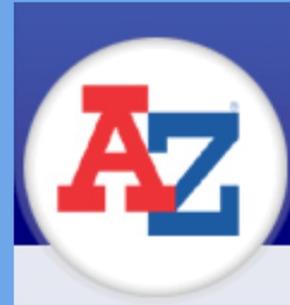
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Promotional Flyer



99.95% of the Australian population don't know one of our National Native Languages - AUSLAN.

AUSLAN stands for Australian Sign Language

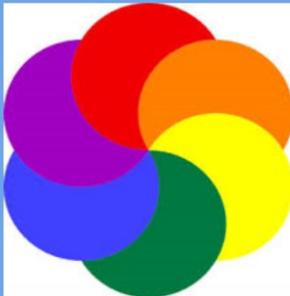


Greetings

The 2011 census counted a population of 9723 AUSLAN users and this number is expected to increase in the 2016 census.

How would you like to increase that population?

Alphabet



Colours

Download Talk to the Hand - Learn AUSLAN Today

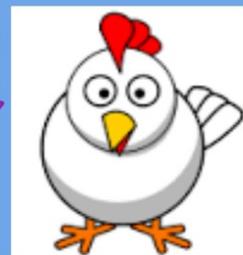


People



Family

Learn from 6 basic categories through videos, games, songs and quizzes



Farm animals



* Please note QR code is representational in sample.



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PROJECT PLANNING

Feature	Resources to learn how to use	Timeframe	Priority
Initial wireframe design concept	Wireframe template	Week1-2	High
User interface design colours and images	App Inventor Tutorials	Week 1-2	High
Learn how to create games in app inventor (animation of games)	App Inventor tutorials and app inventor game gallery	Week 1-4	High
Link videos from online database to app (Source coding)	App inventor tutorials	Week 5-6	High
Film AUSLAN Songs	Device camera	Week7-8	Med
Edit AUSLAN song videos	Moviemaker	Week 9-10	Med
Create sounds (for quizzes correct/incorrect)	App inventor tutorials Trial and error	Week 9 - 10	Med



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USER TESTING: COLLECTING FEEDBACK ON YOUR PROTOTYPE

Questions	Notes	Changes that need to be made by the team
Is there anything that is unclear or confusing in the user-interface?	* videos don't play instantly * Home button takes back to initial start-up screen	– need info to say click play - initial startup screen to dissolve to menu
Would you prefer the app look or behave differently?	*Tried various colour schemes – majority felt cool blues and purples the better option	- use blue and purple for colour theme
Which features of the app interface and usability are of highest value?	Pictures rather than words	NIL
Are there any missing buttons or other content from the app?	Coming soon features	Work in progress
Did your expectations differ from the intent of the app?	All felt met expectations Looking forward to seeing the coming soon sections complete	Out of prototype phase the app will be able to have more screens and memory to increase available categories and functions