

1. Reviewing the material of the previous course

Conversation Questions Jobs & Occupations

Related: Self-employment

- At what age do people usually begin to work in your country?
- At what age do people usually retire in your country?
- At what age would you like to retire?
 - What do you think you will do after you retire?
 - How much money do you think you need to retire with your lifestyle?
- Can you talk about what a typical day at your current job is like?
- Can you describe some of the people that you work with?
- Can you describe your current job?
- What was your first job?
- Do women usually work after they get married in your country?
- Do you ever work overtime?
 - If so, do you get paid more for overtime work?
- Do you have a part-time job? If so, what do you do?
- Do you have to attend a lot of meetings for your job?
- Do you have to do a lot of paperwork?
- Do you have to work overtime?
 - If so, how often?
 - Do you have to work on Sundays?
- Do you know someone who has worked as an undertaker?
 - What is the job of an undertaker?
 - Can women do this job or is it better for a man to be an undertaker?
- Do you like your boss? Why or why not?
- Do you like your job?
- Do you like your job? Why or why not?
- Do you think it is more important to make a lot of money or to enjoy your job?
- Do you think it's acceptable for women to be in the military? Why/why not?
- Do you think people over 65 should be made to retire?
- Do you think women and men should be paid the same for the same job?
- Do you think women are good bosses?
 - Are there women bosses in your country?
- Do you think your company is well run?
 - Do you think that the place where you work is well run?
- Do you work on weekends?
 - Do you work on Sundays?
- Does your mother work?
 - Does your mother work outside of the house?
- Have you ever been promoted?
- Have you ever taken any courses that specifically help you with the job you are doing now?
- Have you ever worked on a farm?
 - Did you like it?
 - Would you like to go back on this farm job?
 - If not, why?
- How do you like your work?
- How have working conditions changed in recent years?
 - Do you think that working conditions have improved? If so, in what ways?
- How long do you plan to continue working where you are?
- How long have you been working at your present job?
- How many days a week do you work?
- How many hours a week do you work?
- How many times have you been promoted?
 - When was the last time you were promoted?
 - Did you get a large pay raise at that time?
- How much do you think a doctor should be paid a month?
 - How about a secretary?
 - How about a truck driver?

- How much money do you make? (Maybe this is not a good question to ask.)
- How much money does a secretary get paid per week?
- How old were you when you got your first job?
- How well do you get along with your boss?
- If you could own your own business, what would it be?
- If you had to choose between a satisfying job and a well-paid one, which would you choose?
- Is it common for men and women to have the same jobs in your country?
- Is it easy to find a job in Canada? How about in your country?
- Name three occupations that you could do. (For example, be a mortician)
 - Name three occupations that you could never do?
- What are some common occupations in your country?
 - What are some common jobs for men in your country?
 - What are some common jobs for women in your country?
 - What are some jobs that children do?
- What are some jobs that you think would be boring?
- What are some jobs that you think would be fun?
- What are some questions that are frequently asked in a job interview?
- What are you responsible for?
- What are you trying to do in order to find a job that you really like?
- What do you do?
 - What's your job?
- What do you like most about that job?
- What do you think is the best job? What do you think is the worst?
- What do you think would be the most interesting job? The most boring?
- What does your father do? (What does your father do for a living?)
- What does your mother do?
- What influenced your choice of job? (Why did you choose your job?)
- What job do you want to have in five years' time?
- What job would you most like to have, if social/cultural boundaries did not apply? (How different are they?)
- What job(s) do you wish to have in the future?
- What jobs in your country are considered to be good jobs? Why?
- What kind of volunteer work have you done?
- What kind of work do you do?
 - What kind of work do you want to do in the future?
- What plans have you made for your retirement?
- What three adjectives would describe yourself as a worker?
- What time do you get home from work?
 - Is it the same time every day?
- What time do you start and finish work?
- What would be your dream job?
 - Do you think it would be possible for you to get this job?
- What's one job you wouldn't like to do? Why not?
- What's your brother's occupation?
- When you were a child, what did you want to be when you grew up?
- When you were a child, what job did you want to have when you grew up?
- Where do you work and what is your current job?
- Where do you work?
- Which job are you best at?
- Which job would you never do?
- Which jobs do you think are the most prestigious?
- Who among the people you know has the most interesting job? What is it?
- Why did you leave your last job - did you resign or were you sacked?
- Would you be upset if your boss was a woman?
- Would you consider the military as a career choice? Why or why not?
- Would you consider yourself to be an ambitious person at work?
- Would you describe yourself as a workaholic?
- Would you like a job in which you traveled a lot?
- Would you like a job that required you to sit at a computer all day?
- Would you like to do the same job for the rest of your life?
- Would you like to work in an office? Why or why not?
- Would you rather be a doctor or a banker?

- Would you rather work inside or outside?

- What job would you most like to do?
- What are the names of some of the people with that job?
- Do you personally know any one with that job?
- How long do you plan to keep it for?
- When do plan to retire?
- What other fields or work will that job make you qualified for?
- What are the work details of that job; what will be your duties at that job?
- What steps are required from you to become a/an...?
- So, how long before you become a/an...; at what ages will you both start and finish this/each job/career?
- What do you hope to spiritually gain from that job?
- What do you wish to physically gain; what kind of things would you like to buy with your money?
- How much money do you need to make to fulfill you dreams and desires?
- If money weren't a problem for you, which job would you prefer to have?
- How does money affect your decisions?
- How do your wants and desires affect your career options and goals?
- How many years of schooling would you prefer to have?
- Can you improve on the way things are now being done in the field you choose?
- Which college courses are needed for you to be the very best in your field?
- Which college courses are required for you dream job?
- What other courses do you need to take so you can pursue your hobbies and personal interests?
- Which of the classes mentioned above are you giving the highest priority? Why?
- Who is the breadwinner (provider) in your family?
- Who makes the most money in your family? (This may not be a "polite" question to ask.)
- Is it common for people from your country to have one job for life?
- Do you see any unfair labour practices in your country's workforce?
- Do you have an after-school job?
- Would you like to have a management position?
- What are the pros and cons of being a manager?
- What are the qualities a good boss should have?
- What is a fair wage for the skills you have?
- Are there any jobs which can only be done by one gender?
 - If so, what are they?
 - What are some jobs that some people think only one gender can do, but can be done by either gender?
- What should you not do during a job interview?
- Who would you hire a employee with a lot of experience or an employee with a lot of education?
- Have you ever worked?
- **Getting a Job**
 - What is the difference between work and a job?
 - Do you have a job?
 - How did you get it?
 - Did you have to go to university to get it?
 - What is the name of your job?
 - Is it a popular job?
 - Is it a job mainly for men, or for women?
 - Did you need any special training to get your job?
 - What type of special training did you need?
 - How long and where was the training?
 - Is it an indoor, or outdoor job?
 - Which do you think most people prefer, indoor or outdoor jobs?
 - Does your job pay a good salary?
 - What are the advantages and disadvantages to your job?
 - Which do you think are some of the more demanding jobs?
 - Which are the least demanding jobs?
 - Which jobs are badly paid?
 - Which jobs are over-paid?
 - Which job are more popular than others, and why?
 - Is your job competitive?
 - What about promotions?
 - Is it too competitive?
 - How is your relationship with your co-workers?

- Why would I choose you instead of the 50 others wanting this position?
- These were submitted as possible **job interview** questions.
- What degrees do you have?
- How much experience do you have?
- Where have you worked?
- Why did you choose this employment?
- How much would you like to earn?
- Have you ever worked in this field?
- Where would you like to work? Why?
- Why do you find your job interesting?

BUSINESS ENGLISH VOCABULARY: Abbreviations and Acronyms

<u>Word</u>	<u>Meaning</u>
@	at
a/c	account
AGM	annual general meeting
a.m.	ante meridiem (before noon)
a/o	account of (on behalf of)
AOB	any other business
ASAP	as soon as possible
ATM	automated teller machine (cash dispenser)
attn	for the attention of
approx	appriximately
cc	copy to
CEO	chief executive officer
c/o	care of (on letters: at the address of)
Co	company
cm	centimetre
COD	cash on delivery
dept	department
e.g.	exempli gratia (for example)
EGM	extraordinary general meeting
ETA	estimated time of arrival
etc	et caetera (and so on)
GDP	gross domestic product
GNP	gross national product
GMT	Greenwich mean time (time in London)
i.e.	id est (meaning : 'that is')
Inc	incorporated
IOU	I owe you
IPO	initial public offer
Jr	junior
K	thousand
lb	pound (weight)
£	pound (money/currency)

<u>Word</u>	<u>Meaning</u>
assessment	Evaluation of one's abilities
background	Education - qualifications - experience
bonus	Additional payment to an employee as an incentive or reward
curriculum vitae	Summary of one's education and experience to date; resume
dismiss	Discharge from employment (to fire, to sack, to let go)
employee	Person who works for a firm or company.
employer	Person or firm who employs people.
fire	To dismiss from a job.
fringe benefits	Advantages offered in addition to salary (life insurance, retirement scheme, company car, etc.). Also called 'perks', abbreviation for 'perquisites'.
hire	Employ or take on personnel in a company.
interview	Oral examination of a candidate for employment.
make redundant	Dismiss for economic reasons.
maternity leave	Period of absence for a female employee when having a baby.
notice	Advance warning of intention to leave one's job - to give or hand in one's resignation.
personnel	People who work for a firm or company (employees).
personnel officer	Manager responsible for recruitment, training and welfare of personnel (employees).
promotion	Advancement in rank or position in a company.
prospects	Opportunities for success or promotion in a career.
recruit	Look for and hire personnel.
resign	Leave a job voluntarily.
retire	Leave employment because of age.
sick leave	Absence because of illness - to be on sick leave.
staff	People who work for a firm or department; employees.
strength	Strong characteristic or particular ability.
strike	To go on strike : to stop working in protest against something.
take on	Employ or hire.
trainee	Person being trained for a job e.g. a trainee salesman.
training course	A course of study to prepare for a job e.g. a computer course.
unemployment benefits	Payments made by the state to an unemployed person.
vacancy	A position to be filled.
weakness	A lack of ability or a shortcoming in character.

2. Presentations

BUSINESS ENGLISH VOCABULARY: Presentations

<u>Word</u>	<u>Meaning</u>
audience	Group of listeners or spectators
body language	Communication through facial expressions, body movements, etc.
chart	Sheet of information in the form of a table, graph or diagram.
diagram	Graphic representation of a situation e.g. the results of an action.
flip chart	Pad of large paper sheets on a stand for presenting information.
graph	Diagram showing the relation between variable quantities.
guidelines	Advice or instructions given in order to guide or direct an action.
handout	Written information (report etc.) given to people at a presentation.
key point	Essential or main point.
marker	Pen with felt tip used for writing on a whiteboard.
microphone	Electrical instrument used to amplify the speaker's voice.
O.H.T.	O verhead t ransparency : sheet of film with an image or printed information for overhead projector.
objective	What one wants to achieve; aim
outline	Brief description or presentation.
overhead projector	Device that projects an O.H.T. onto a screen.
overview	Short presentation of the main points.
pointer	Rod or stick used to indicate things on a map, screen, etc.
screen	Flat, reflective blank surface on which films, slides, etc. are projected.
signposting language	Phrases used to help focus the audience's attention on different parts of a presentation.
slide	Small photographic transparency.
summarize	Make a summary of the essential points; sum up.

A presentation is a formal talk to one or more people that "presents" ideas or information in a clear, structured way. People are sometimes afraid of speaking in public, but if you follow a few simple rules, giving a presentation is actually very easy.

Structure and Content

- Introduction: General information on the topic
 - Give your listeners an introduction to the topic (some general information) and explain what exactly you are going to talk about in your presentation.
- Actual Presentation
 - Subdivide your presentation into several sub-topics.
- Conclusion
 - Try to find a good conclusion, e.g.:
 - an invitation to act
 - an acknowledgement
 - a motivation

Important Tenses

- Simple Present
- Simple Past
- Present Perfect

Tips on Giving a Presentation

As listeners cannot take up as many information as readers, keep the following rules in mind when giving a presentation:

- Keep your sentences short and simple.
- Use standard English, avoid slang and techy language.
- Prefer verbs to nouns (not: *The meaning of this is that ...*, but: *This means that ...*).
- Use participial constructions sparingly. (In written texts they are often used to increase the density of information in a sentence. In spoken texts, however, they make it more difficult for the listeners to follow.)
- Speak clearly and slowly.
- Have little breaks in between the sentences to allow your audience to reflect on what has been said.
- Communicate freely (don't read the whole text from a piece of paper).
- Illustrate certain aspects of your presentation with pictures and graphics.

The following tricks will also help you keep your audience's attention:

- Outline to the audience how your presentation is structured. (e.g. *I will first explain ... / Then I will ... / After that ... / Finally...*).
- Indicate when you come to another sub-topic (*I will now talk about ...*). This way your audience can follow your presentation more easily.
- Use a [rhetorical question](#) or [hypophora](#) from time to time. Your listeners will think that you've asked them a question and thus listen more attentively.
- Use enumerations starting first / second / third. This also draws your audience's attention.
- A joke or a quotation might also help keeping your audience listening. Don't overdo it, however. Using too many jokes or quotations might not have the effect you want.

Word List

- Introduction

Introduction

I want to give you a short presentation about ...
My presentation is about ...
I'd like to tell you something about ...
I think everybody has heard about ..., but hardly anyone knows a lot about it.
That's why I'd like to tell you something about it.
Did you know that ...?

- Actual Presentation

Introducing sub-topics

Let me begin by explaining why / how ...
First / Now I want to talk about ...
First / Now I want to give you an insight into ...
Let's (now) find out why / how ...
Let's now move to ...
As I already indicated ...
Another aspect / point is that ...
The roots of ... go back to ...
... began when ...
Legend has it that ...
As you probably know, ...
You probably know that ...
Maybe you've already heard about ...
You might have seen that already.
At the beginning there was / were ...
Many people knew / know ...
Hardly anyone knew / knows ...

... hit the idea to ...
... was the first to ...
It is claimed that ...
One can say that ...
I have read that ...

Pictures and graphics

Let me use a graphic to explain this.
The graphic shows that ...
As you can see (in the picture) ...
In the next / following picture, you can see ...
Here is another picture.
The next picture shows how ...
Let the pictures speak for themselves.
I think the picture perfectly shows how / that ...
Now, here you can see ...

Final thoughts on a sub-topic

It was a great success for ...
It is a very important day in the history of ...
It was / is a very important / special event.
This proves that ...
The reason is that ...
The result of this is that ...
It's because ...
In other words, ...
I want to repeat that ...
I'd (just) like to add ...

■ Conclusion

Conclusion

... should not be forgotten.
... has really impressed me.
I hope that one day ...
We should not forget ...
All in all I believe that...
Summing up / Finally it can be said that ...
Let me close by quoting ... who said, »...«
That was my presentation on ...
I am now prepared to answer your questions.
Do you have any questions?

Starting the presentation	<p>Good morning/Good afternoon ladies and gentlemen</p> <ul style="list-style-type: none"> • The topic of my presentation today is ... • What I'm going to talk about today is ...
Why you are giving this presentation	<ul style="list-style-type: none"> • The purpose of this presentation is ... • This is important because ... • My objective is to ...
Stating the main points	<ul style="list-style-type: none"> • The main points I will be talking about are : <ul style="list-style-type: none"> ◇ Firstly, ◇ Secondly, ◇ Next, ◇ Finally ... we're going to look at ...
Introducing the first point	<ul style="list-style-type: none"> • Let's start / begin with ...
Showing graphics, transparencies, slides, etc.	<ul style="list-style-type: none"> • I'd like to illustrate this by showing you ...
Moving to the next point	<ul style="list-style-type: none"> • Now let's move on to ...
Giving more details	<ul style="list-style-type: none"> • I'd like to expand on this aspect/problem/point ... • Let me elaborate on that. • Would you like me to expand on/elaborate on that?
Changing to a different topic	<ul style="list-style-type: none"> • I'd like to turn to something completely different ...
Referring to something which is off the topic	<ul style="list-style-type: none"> • I'd like to digress here for a moment and just mention ...
Referring back to an earlier point	<ul style="list-style-type: none"> • Let me go back to what I said earlier about ...
Summarizing or repeating the main points	<ul style="list-style-type: none"> • I'd like to recap the main points of my presentation: <ul style="list-style-type: none"> ◇ First I covered ... ◇ Then we talked about ... ◇ Finally we looked at ... • I'd now like to sum up the main points which were : <ul style="list-style-type: none"> ◇ First ... ◇ Second, ◇ Third,
Conclusion	<ul style="list-style-type: none"> • I'm going to conclude by ... <ul style="list-style-type: none"> ◇ First ... ◇ Second, ◇ Third, • In conclusion, let me ... <ul style="list-style-type: none"> ◇ First ... ◇ Second, ◇ Third,
Questions	<ul style="list-style-type: none"> • Now I'd like to invite any questions you may have. • Do you have any questions?

3. Meetings.

BUSINESS ENGLISH VOCABULARY:[Meetings](#)

<u>Word</u>	<u>Meaning</u>
A.G.M.	Annual General Meeting
absentee	Person not at the meeting, not present.
agenda	Written list of points to be discussed at a meeting.
alternative	Choice of two or more possibilities.
attendee	Participant or person attending a meeting.
ballot	System of secret voting; voters place their ballot-papers in a ballot-box;
casting vote	Deciding vote, usually by the Chairman, when votes are in equal number.
chairman / chairperson	The person who conducts the meeting.
clarify	Make something clearer by giving more information.
conference	Formal meeting for discussion or exchange of views.
conference call	Telephone call between three or more people in different places.
consensus	General agreement.
deadline	Future date at which something must be done.
decision	Reach a conclusion or resolution concerning future action.
i-conference	A meeting or discussion between two or more people via the internet.
interrupt	Stop a person who is speaking in order to say or do something.
item	A separate point for discussion on an agenda.
main point	What is most essential.
minutes	A written summary of the proceedings at a meeting.
objective	What is aimed at, what one wants to achieve or obtain.
point out	Draw attention to something e.g. point out an increase in demand.
proposal	A course of action put forward for consideration; to make a proposal.
proxy vote	A vote cast by one person for another.
recommend	Advise a course of action; make a recommendation.
show of hands	Raised hands to express agreement or disagreement in a vote.
summary	A brief statement of the main points.
task	A piece of work to be done; to assign a task to someone.
unanimous	In complete agreement.
video conference	Conference linking people in different locations by satellite, TV, etc.
vote	Express one's agreement or disagreement; to cast a vote.

4. Negotiations.

BUSINESS ENGLISH VOCABULARY: [Negotiations](#)

<u>Word</u>	<u>Meaning</u>
agent	Person or company that acts for another and provides a specified service.
agreement	Arrangement between two or more people or companies.
bargain price	Reduced price
bedrock price	Lowest possible price.
commitment	Engagement or undertaking; to commit oneself.
compromise	Each party gives up certain demands in order to reach an agreement.
condition	A stipulation or requirement which must be fulfilled.
contract	Written agreement between two or more parties.
counter-offer	Offer made in response to an offer by the other party.
counter-productive	Having the opposite effect to that intended.
deal	A business transaction.
discount	Reduction in price.
estimate	Approximate calculation of the cost.
facilities	Equipment (e.g. parking facilities).
feasible	Possible, something that can be done.
figure out	Find a solution; estimate the cost.
know-how	Practical knowledge or skill.
joint venture	A way of entering a foreign market by joining with a foreign company to manufacture or market a product or service.
negotiate	Discuss a business deal in order to reach an agreement.
point out	Draw attention to something (e.g. the advantages of your proposal).
proposal	Course of action, or plan, put forward for consideration; to make a proposal.
Quote	Give an estimated price (a quotation).
Range	A selection of products sold by a company.
Rebate	Reduction or discount.
Supply	Provide customers with goods or services.
supplier	Person or company that supplies goods or services.
tender	A written offer to execute work or supply goods at a fixed price
turnkey	Equipment ready for use or operation (e.g. a plant or factory).
underestimate	Make too low an estimate of something (cost, danger, difficulty).
work out	Calculate (e.g. price of something); find a solution.

6. Texts for self-study:

<http://lorien.ncl.ac.uk/ming/Dept/Tips/present/comms.htm>

COMMUNICATION SKILLS - MAKING ORAL PRESENTATIONS

The material of your presentation should be concise, to the point and tell an interesting story. In addition to the obvious things like content and visual aids, the following are just as important as the audience will be subconsciously taking them in:

Your voice - how you say it is as important as what you say

Body language - a subject in its own right and something about which much has been written and said. In essence, your body movements express what your attitudes and thoughts really are. You might like to check out this web page

Appearance - first impressions influence the audience's attitudes to you. Dress appropriately for the occasion.

As with most personal skills oral communication cannot be taught. Instructors can only point the way. So as always, practice is essential, both to improve your skills generally and also to make the best of each individual presentation you make.

PREPARATION

Prepare the structure of the talk carefully and logically, just as you would for a written report.

What are:

- the objectives of the talk?
- the main points you want to make?
- Make a list of these two things as your starting point

Write out the presentation in rough, just like a first draft of a written report. Review the draft.

You will find things that are irrelevant or superfluous - delete them. Check the story is consistent and flows smoothly. If there are things you cannot easily express, possibly because of doubt about your understanding, it is better to leave them unsaid.

Never read from a script. It is also unwise to have the talk written out in detail as a prompt sheet - the chances are you will not locate the thing you want to say amongst all the other text. You should know most of what you want to say - if you don't then you should not be giving the talk! So prepare cue cards which have key words and phrases (and possibly sketches) on them.

Postcards are ideal for this. Don't forget to number the cards in case you drop them.

Remember to mark on your cards the visual aids that go with them so that the right OHP or slide is shown at the right time

Rehearse your presentation - to yourself at first and then in front of some colleagues. The initial rehearsal should consider how the words and the sequence of visual aids go together. How will you make effective use of your visual aids?

MAKING THE PRESENTATION

Greet the audience (for example, 'Good morning, ladies and gentlemen'), and tell them who you are. Good presentations then follow this formula:

- tell the audience what you are going to tell them,
- then tell them,
- at the end tell them what you have told them.

Number-crunching and problem-solving: Studying mathematics at university

Studying mathematics at university provides an academically rigorous and diverse preparation for a range of careers after graduation, from accountancy to biomedical research.

However, most of those who choose to study the subject do so not with a particular career in mind, but simply because they enjoy the mental stimulation the subject provides.

Dr Amie Albrecht, who is now a lecturer in maths at the **University of South Australia**, recalls feeling attracted to the subject because, "everything seems like a puzzle to crack".

This idea of solving puzzles and problems is certainly at the heart of the subject – whether those problems are highly theoretical, or of immediate practical relevance.

Studying mathematics at university: what to expect

The subject is commonly divided into 'pure' mathematics, which is more abstract, and 'applied' mathematics, in which maths skills and knowledge are applied to specific sectors.

As an undergraduate mathematics student, you can expect to cover key pure maths topics such as abstract algebra, analysis, geometry and number theory.

Alongside these pure modules, you should also have the opportunity to study current applications of mathematics to different fields of human activity.

This could mean studying the use of maths in other subjects, such as **physics, social sciences, economics, business**, biotechnology or computer programming.

If you do already have a strong interest in a particular field, it may be possible to find a dual-degree maths degree program to match, such as mathematics and **computer science**, or mathematics and **business studies**.

However, many general mathematics courses will also allow students to choose their own fields of specialization, particularly towards the end of the degree.

Many maths courses will also cover the history of the subject, giving students an overview of major historical figures and developments in the field.

What next: careers for maths graduates

The list of possible careers following a maths degree is a long one, including roles in scientific research, business and finance, teaching, computing and various types of analysis.

Albrecht has pursued the research route, and has been involved in projects such as the development of more energy-efficient transport systems.

However, she knows of maths graduates who've gone on to do many other things, including "plant biology, finance, energy, defence and computer game design".

In fact, as Albrecht says, the possibilities for maths graduates are almost 'endless'. This is largely thanks to the high esteem employers hold for maths degrees, due to their intellectual rigour and strong focus on developing problem-solving skills - in demand in pretty much every job sector and role.

So, even if your decision to study mathematics at university is motivated mainly by your love of the subject, it seems likely that your degree will provide a strong foundation for future career options as well.

Careers for mathematicians: what can you do with a maths degree?

If you're considering studying maths at university, you're probably also starting to think about the kind of careers mathematicians go on to. The short answer is: everything from computer programming to accountancy, and biomedical research to business management.

Dr Amie Albrecht, a lecturer at the **University of South Australia** (UniSA)'s department of mathematics and statistics, says, "It can be difficult when starting out to know where a mathematics degree will lead, but the versatility of mathematics means that your options are broad. "I know people with mathematics training working in plant biology, finance, energy, defence, computer game design... the possibilities are endless."

Dr Albrecht also points out that many mathematicians choose to combine maths with a second interest, such as environmental studies, and says "the intersection of two skill sets can be very attractive to future employers."

Maths careers in research

Albrecht herself started out with a bachelor of computing and mathematics at UniSA. At the time, she was unsure what career options were available in maths, and thought studying computer science as well would broaden her prospects.

In fact, she's found the two subjects work very well together, and says she now appreciates the "vast career prospects that arise from studying mathematics."

Much of her current research has a very practical focus – such as improvements to the energy efficiency of transport systems – and she says, "It is satisfying to be tackling one of our big social challenges with mathematics!"

John Walmsley, who is in the final stages of a PhD at the UK's **University of Oxford**, provides another example of the broad range of research careers open to mathematicians.

Having completed a four-year master of mathematics (MMath), John took a one-year conversion course into systems biology, which enabled him to join the university's department of computer science.

Specifically, John's research is in the field of computational cardiac electrophysiology – in layman's terms, the use of computer modelling to study the electrical activities of the heart.

Maths careers in teaching

Research is not the only path for mathematicians keen to make a difference to the world. Another option is to become a teacher, like New Zealander Emily Sterk.

Since 2003, Emily has taught music and maths at secondary schools in **New Zealand and Australia**. She describes teaching as a 'challenge' – but an enjoyable and rewarding one.

"Many students think they are not good at maths or don't enjoy maths, and I like to change that for them," she explains.

"I also enjoy the opportunities I have to help them learn the mathematics that will help them in the 'real world' – things like understanding home loans, credit cards... all the traps that finance companies set."

Albrecht echoes this, saying she was keen to find an academic position that allows her to combine teaching and research. As the department's student outreach coordinator, she also engages with local secondary school students, "hopefully raising their appreciation of the power, versatility and applicability of mathematics."

Maths careers in business and finance

Like John, Steven Tucker studied maths at the University of Oxford. Since graduating, he's mainly worked in software engineering, and has completed projects for companies including BT, Lehman Brothers and RBS.

However, in recent years Steven has taken on a new role, as managing director of his own business, The Payroll Site.

This has meant adopting many new responsibilities. "I work on every aspect of the business, including advertising, customer service and finance. It might be easier to list the things I don't do!"

Steven's maths degree didn't teach him all these things – but it did provide him with strong analytical and problem-solving skills, which have helped him adapt to new challenges.

Likewise, Johanna Ramirez, project accountant at Ennead Architects in **New York**, US, says that while she knew little about accounting before starting the job, her bachelor's and master's degrees in maths were undoubtedly good preparation.

So, to reiterate Dr Albrecht's point, it really seems that career options for mathematicians are pretty much 'endless'. Depending on your field of interest – and the opportunities life throws at you – the skills you gain as a maths student should serve you well whichever path you choose.