



# A Student Guide to NVivo 8

- Creating a Project
- Importing Sources
- Nodes and Coding
- Exploring Data

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# Introduction

This handbook has been formulated to provide students in the areas of marketing research, social research and qualitative research analysis guidance in the use of NVivo 8.

NVivo 8 is a qualitative analysis software application which allows the researchers the opportunity to store, manage and analyse qualitative data. The functionality of NVivo software is high and this handbook provides an elementary introduction to its use and purpose.

In the main, NVivo 8 is intuitive and easily applied. QSR, the owners of the programme, afford access to a range of additional materials and help facilities.

This handbook will provide the reader/student with the required knowledge to start a qualitative project using NVivo 8, enter different types of data (textual, image and film) and analyse each using fundamental methods.

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# 1) Creating a Project

In this section the reader will be shown how to:

- Open the NVivo package
- Start a New Project
- Open an Existing Project
- Navigate Around a Project
- Save a Project

## 1.1) Opening the NVivo Package

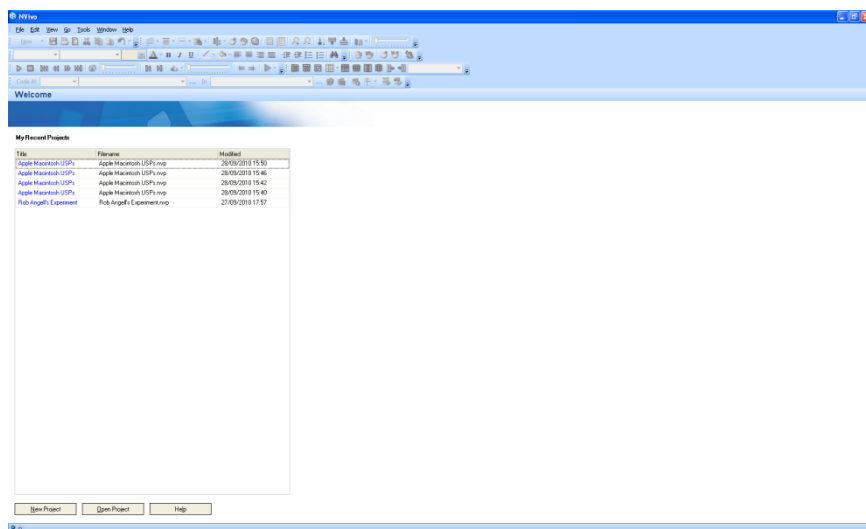
Cardiff University PCs can differ in how you access NVivo 8. As a rough guide, to open the programme on a university PC, follow this process:

Start: [University Software](#): [Networked Applications](#): [General Software](#): [Qualitative Analysis](#): [NVivo 8](#)

You may have to install the programme first using the [NVivo 8 Installer](#). Please bear in mind that an NVivo project file can take up a lot of space – ensure that you have sufficient network memory available or your file may corrupt when saving without warning.

## 1.2) Starting a New Project

When NVivo 8 opens, you are faced with a screen as shown below. When you have conducted several projects you may have a choice of older databases to choose from. In this instance we are interested in opening a new project.



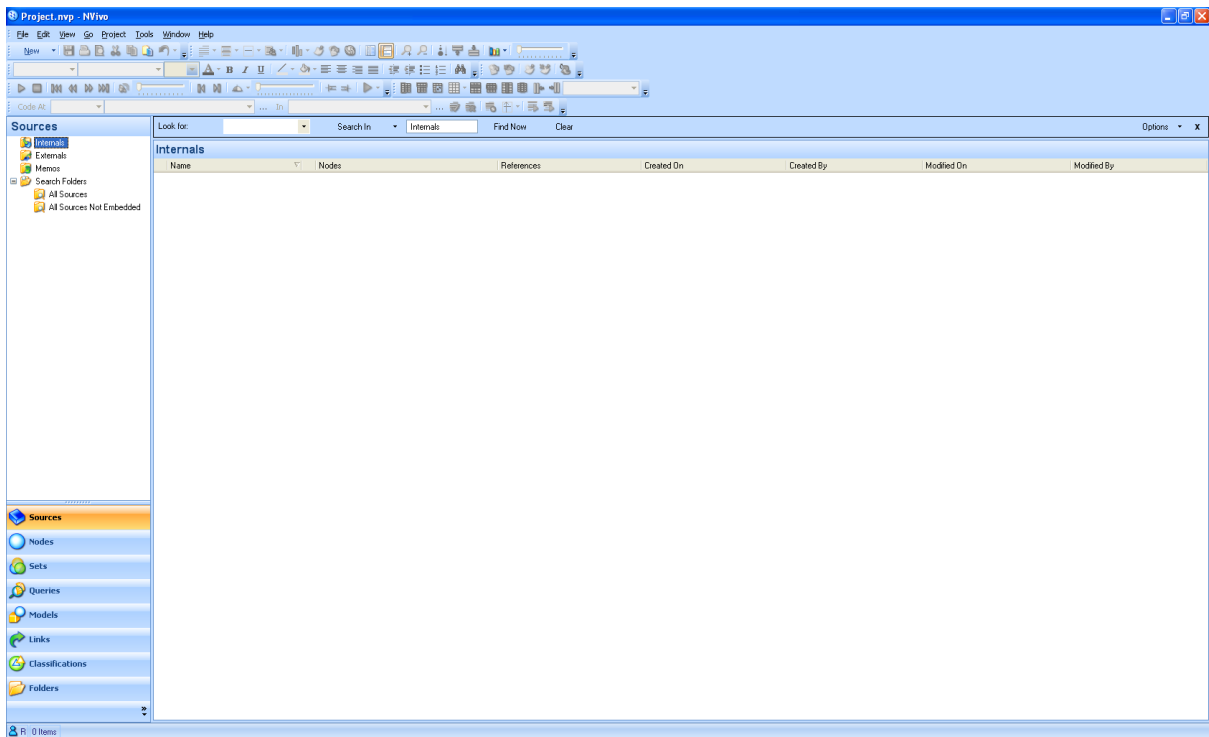
Click on the **NEW PROJECT** box at the bottom of the screen.

By clicking on the new project you will be provided with a box that you can use to name and provide a description of your project. This is a good thing to do when you are working with lots of different projects over a number of years. You will also need to give your file a **NAME** and **SAVING** location. You can do this by clicking on the **BROWSE** button.

Click **OK** to continue.

### 1.3) Navigating Around a Project

After entering into your **NEW** project you will be faced with a screen resembling that provided below.

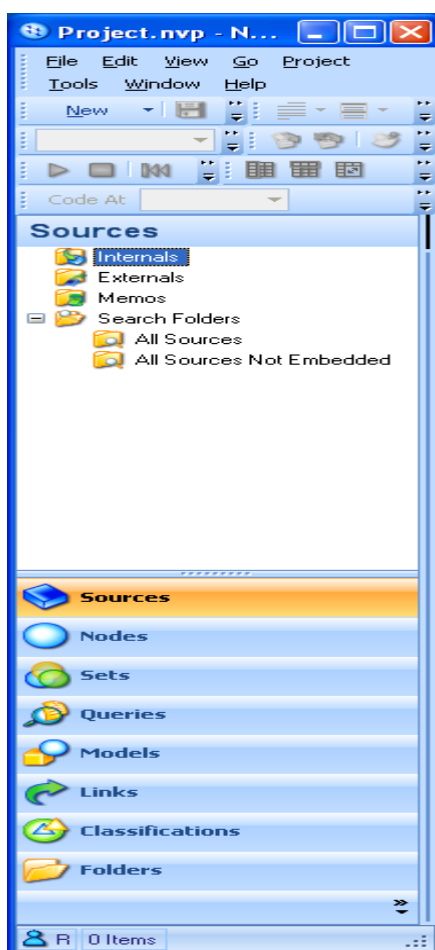


Use the Main toolbar to navigate around the project. From here you will be able to do some of the more common tasks required from an NVivo project such as:

- Copy
- Paste
- Save Projects
- Import Files (e.g. interview transcripts, pictures, etc.)



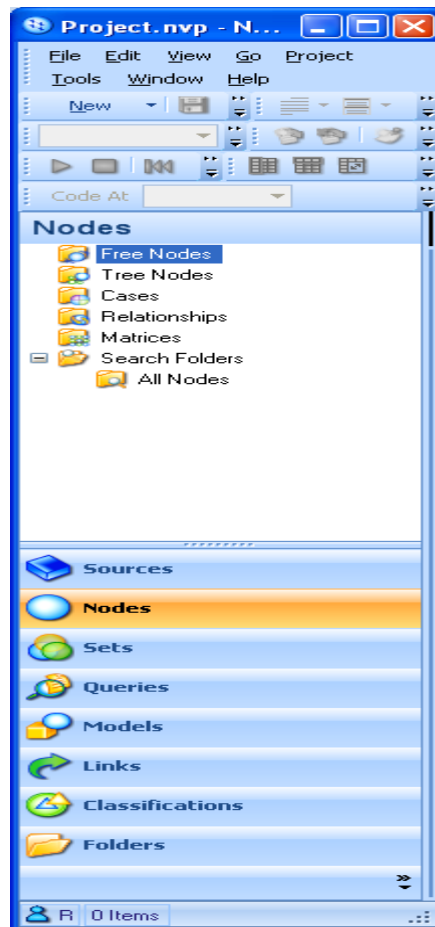
At the side of the main window you have the following screen:



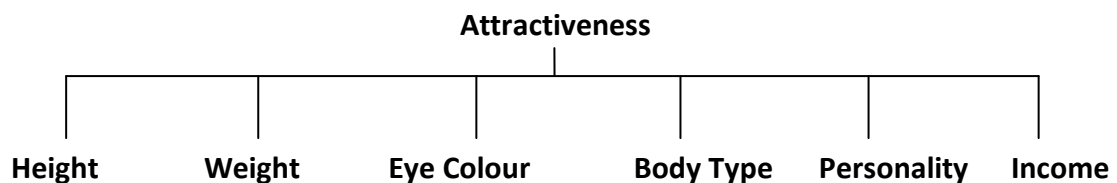
We use the **SOURCES** box to hold all of our materials ready for analysis. We can check how many interviews we have for analysis by clicking here.

NVivo makes the distinction between **INTERNAL** (interviews, photos) and **EXTERNALS** that are located (as the name suggests) external to the NVivo database.

The other important screen is the **NODES** box. Click on **NODES** on the left hand sign and the following screen will be displayed:



This screen indicates the **CODES** that we have designated to certain text, pictures, parts of a video etc. We can use our **FREE NODES** to build up **TREE NODES** which delineate structures in our interpretation of data. For example, the **ATTRACTIVENESS** of a person may follow the tree structure below.



This would be evidenced in our tree nodes.

## 1.4) Saving your Project

You can save your project at any time by choosing the **SAVE** icon in the main toolbar. You can only save your project if a change has been made.

**NOTE:** It is worth saving your project at regular intervals. The NVivo folder will automatically save every 30 minutes but this is a lot of analysis to lose if you experience an error (say after 29:50 minutes). Make sure you regularly save the project.



## 2) Importing Documents into Your Project

In general there are three types of documents to import into an NVivo library. These are internals, externals and memos. These represent SOURCES of data.

### 2.1) Sources

In NVivo, 'sources' is used as the collective term for the research materials that you will eventually code.

**Internals** are your primary sources and consist of the electronic format materials. They may take the form of interview or focus group transcripts, field notes, photos or video recordings, field notes, etc.

**Externals** are the materials that you can't import into your NVivo project such as reference books, handwritten diaries and web pages.

**Memos** are created by the researcher to capture the thoughts and insights made by the researcher when analysing the data.

### 2.2) Importing Internal Files

In the main window, click on the **SOURCES** icon on the left hand side.

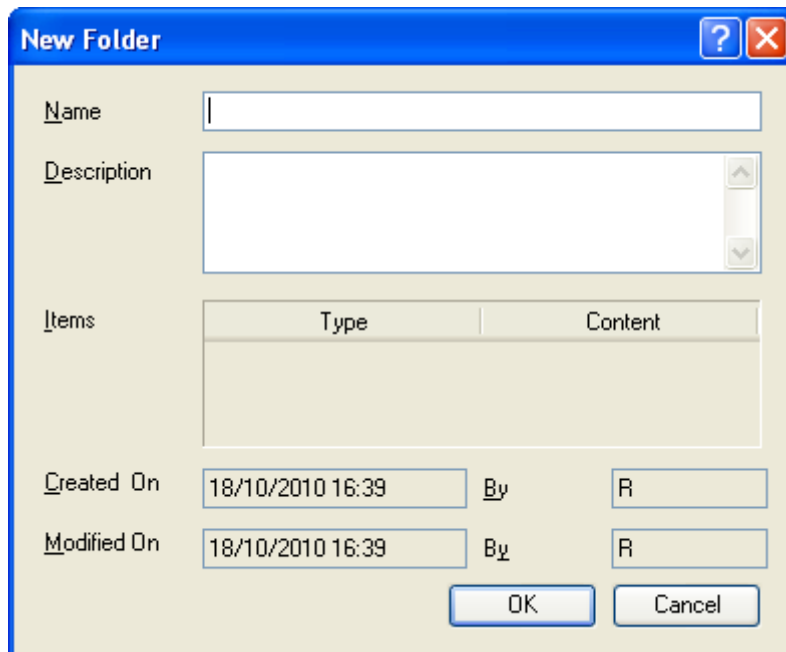
#### 2.2.1) *Creating a File*

You may want to sort each of your sources into categories representing the type of data they provide (e.g. transcripts, videos, etc.)

Right click on the Internals icon and select **NEW FOLDER**. Alternatively, click on the **PROJECT** icon at the top of the menu screen and then select **NEW FOLDER**.

Name your folder (e.g. interviews, photos, videos, etc.).

Click **OK** to continue...

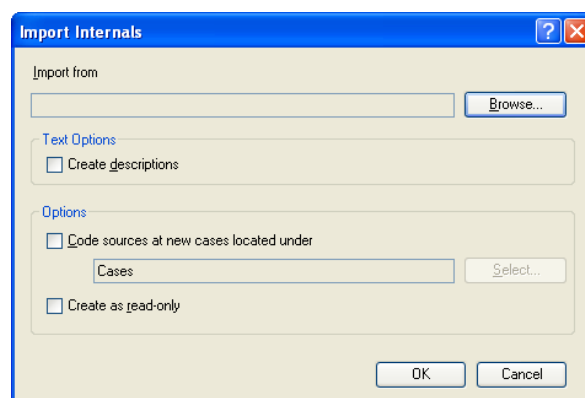


### 2.2.2) Importing Text Files

Make sure that you have selected the Internals icon (and the folder location).

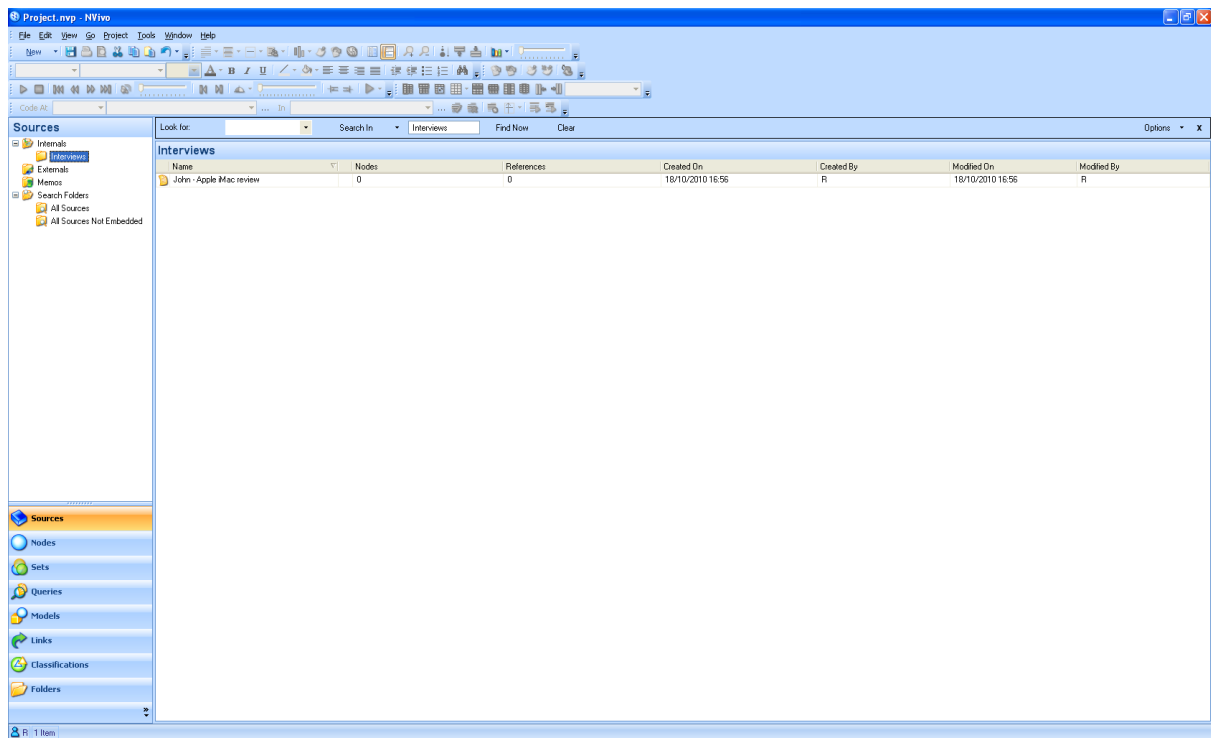
In the **PROJECT** option on the main toolbar select **IMPORT INTERNALS** or **ctrl:shift:i**

Click on **BROWSE** to locate the files needed to be imported (e.g. interviews). You can create a description for each file but this is often unnecessary. Click **OK** and continue.



After importing one of your files into the database, your main screen window should look like the following with a list of **sources** and a **brief** description (if you ticked the Create Descriptions box in Text Options).

For each file we are given a figure under the **NODES** category indicating the number of times something has been coded within the source. So for example, if 5 themes are identified in the interview with John, the number of nodes will also be 5.

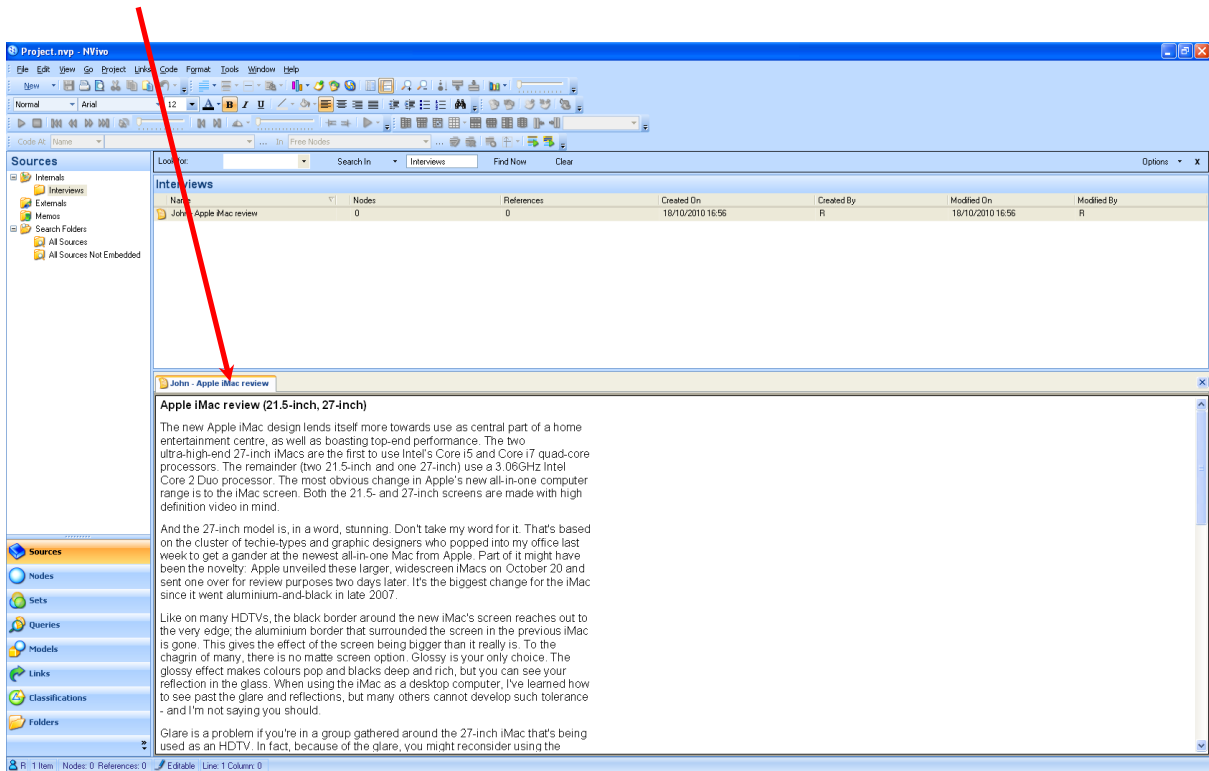


We are also given other categories such as the date the file was created and who it has been modified by (i.e. the author).

To open the file, double click on it. It will then open in the box below. You are able to change the size of the box by positioning the cursor on the line of the box and moving it up or down.

Once your data is in this format you are able to begin the analysis.

To close the file, right click on the tab in the analysis pane and click **CLOSE**.



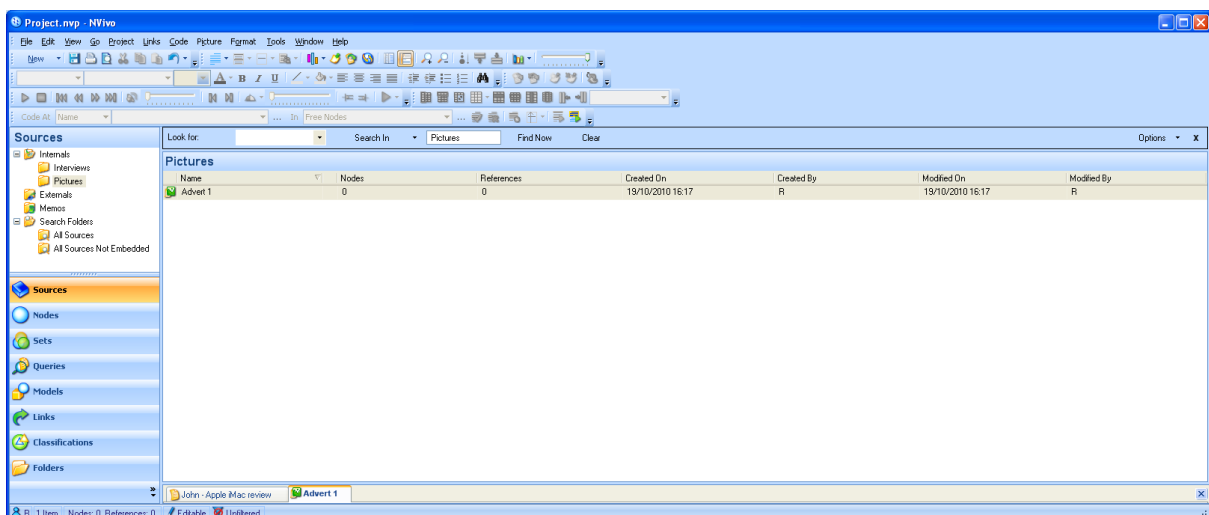
### 2.2.3) Importing Pictures

You can import pictures in much the same way as word documents.

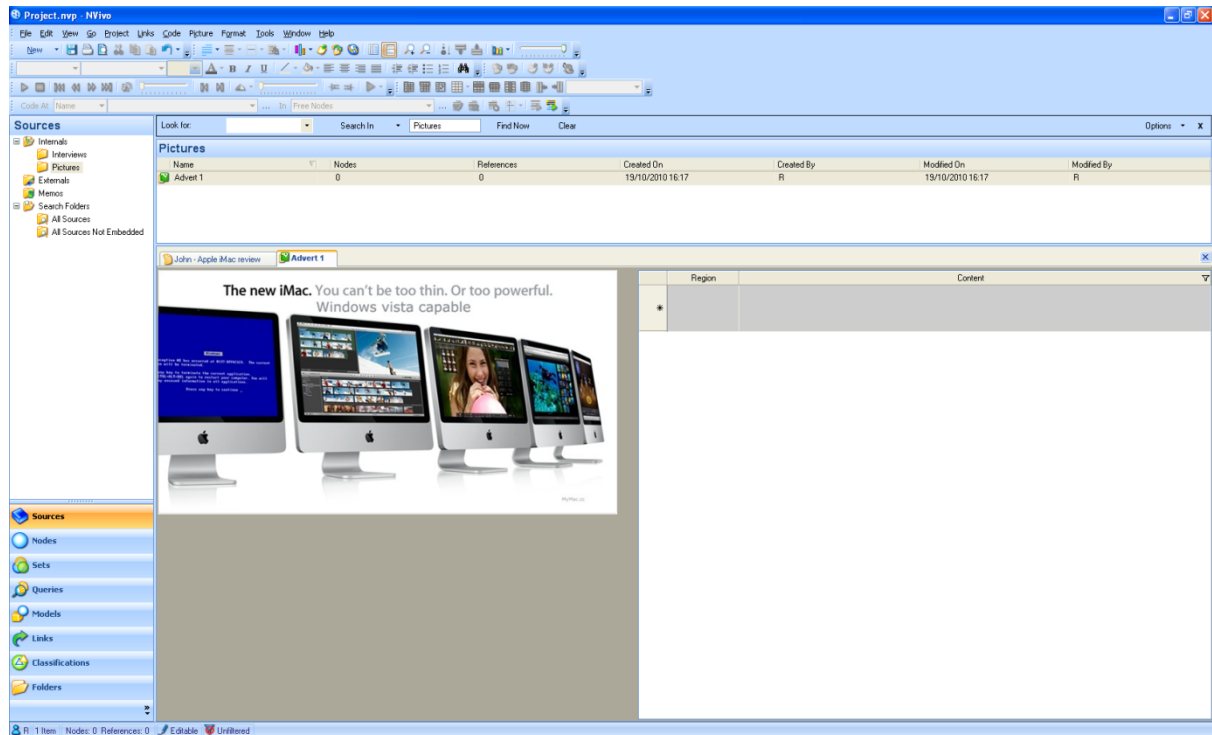
Firstly create a **NEW FOLDER** in the **INTERNALS** sources icon. Label these **PICTURES** or **GRAPHICS** (or anything you like).

Under **PROJECT** in the toolbar click on **IMPORT INTERNALS**. Select the file you wish to import and press **OK**.

Your NVivo database should have the file in the **PICTURES** box on the main page as shown below:



To view the file, click on the folder, this will bring up the image ready to be analysed; as shown below:



#### 2.2.4) Importing Video Files

If we have the video file we can import film clips. This is achieved in exactly the same way as documents and picture files.

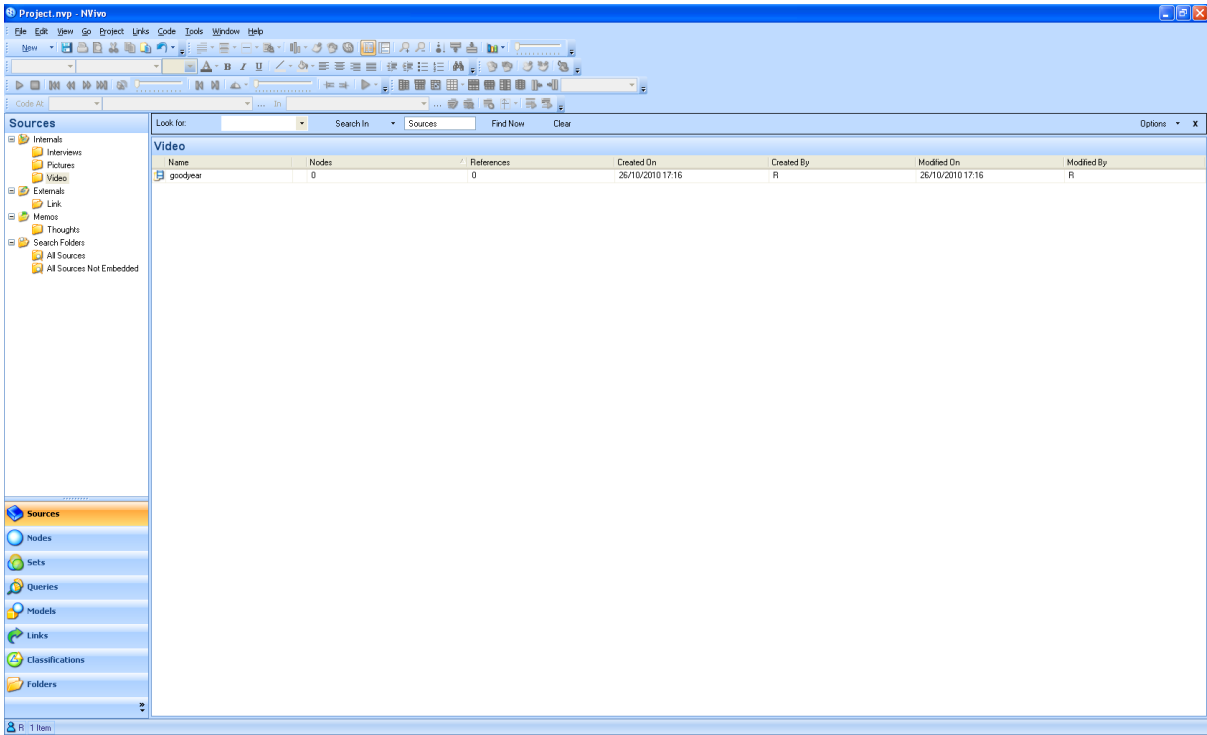
Create a file underneath the Internal Sources icon (right-click: New Folder).

Click on **PROJECT** in the top icon bar.

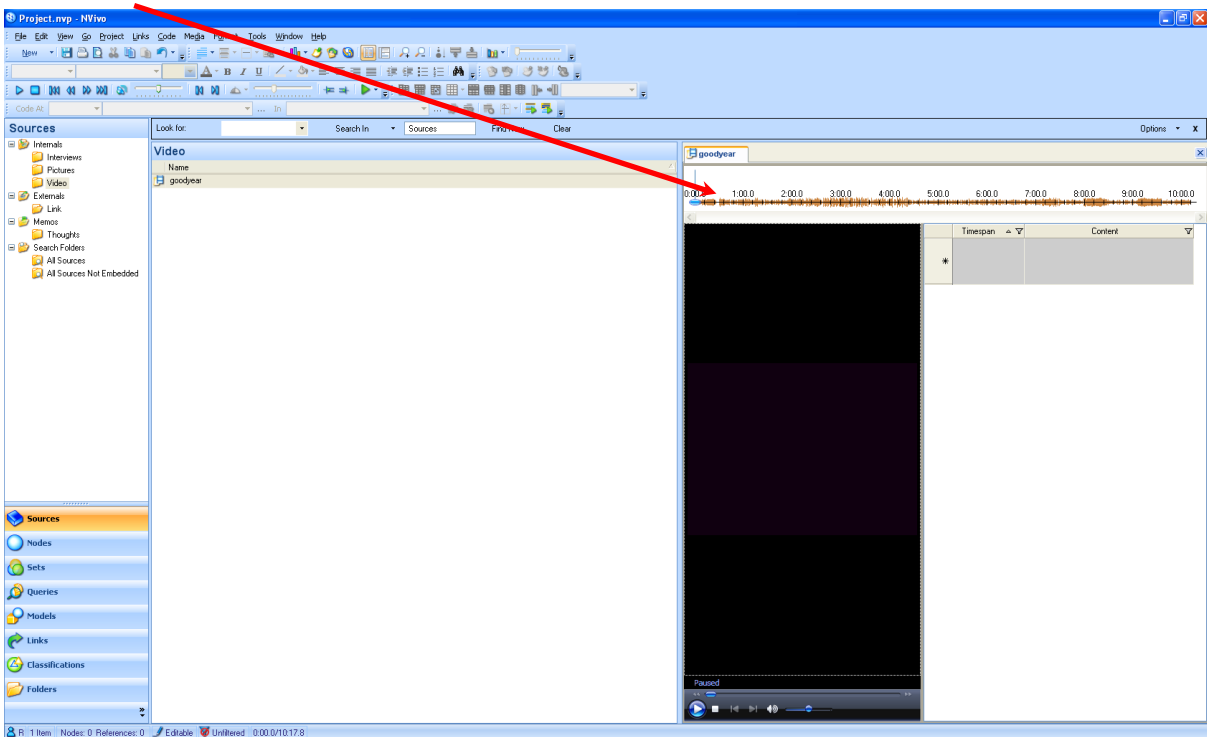
Click on **IMPORT INTERNALS** and select the location of your video file.

Give the file a name (e.g. Goodyear vid).

Once you have clicked **OK**, the screen should look like this:



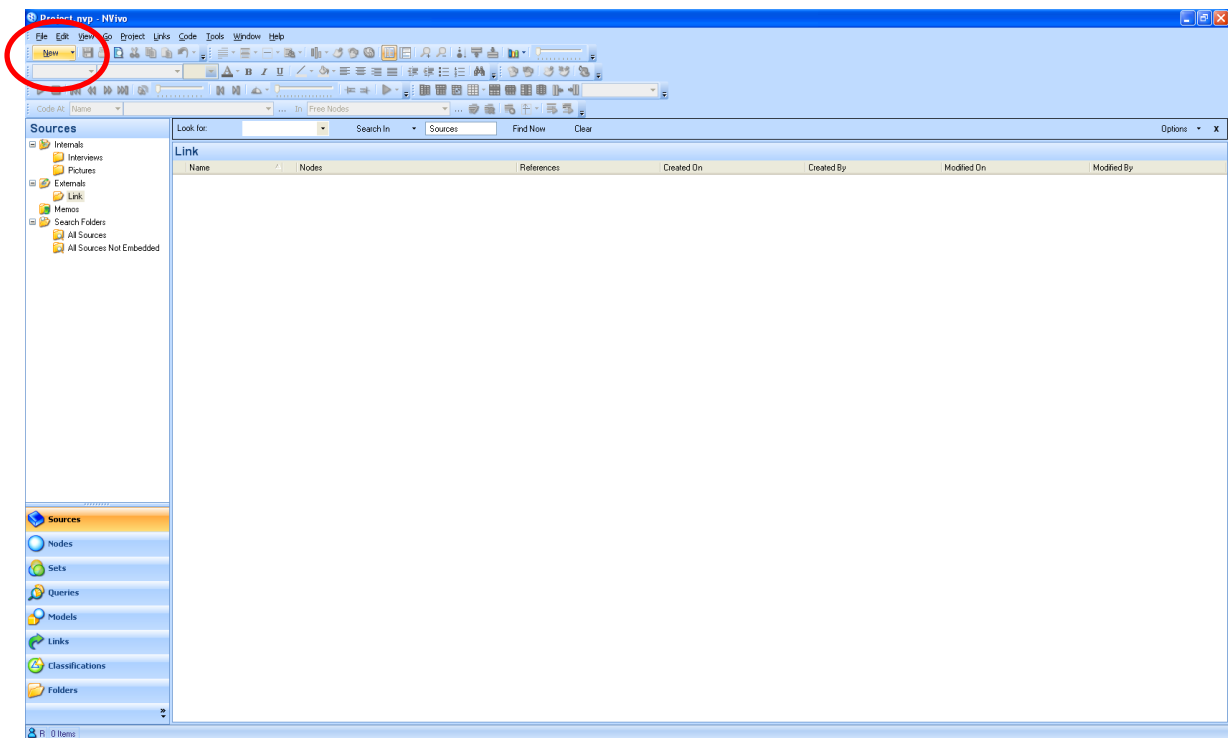
If we double click on the file, we are provided with the embedded video ready for analysis:



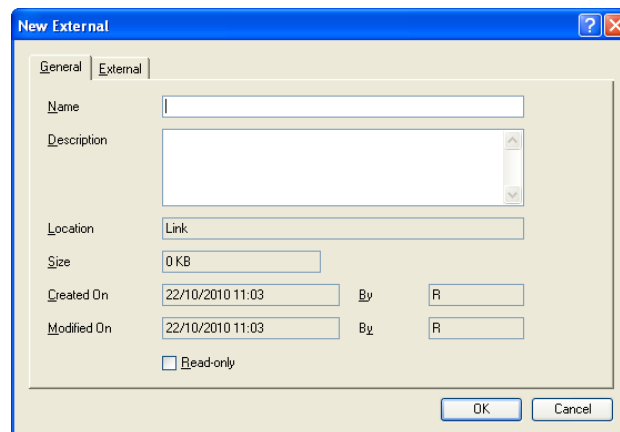
### 2.3) Importing external files

We can easily import external documents such as web page and youtube videos.

Make sure you have the External folder you want to locate the file in highlighted. Click on **NEW** in the top left-hand corner.

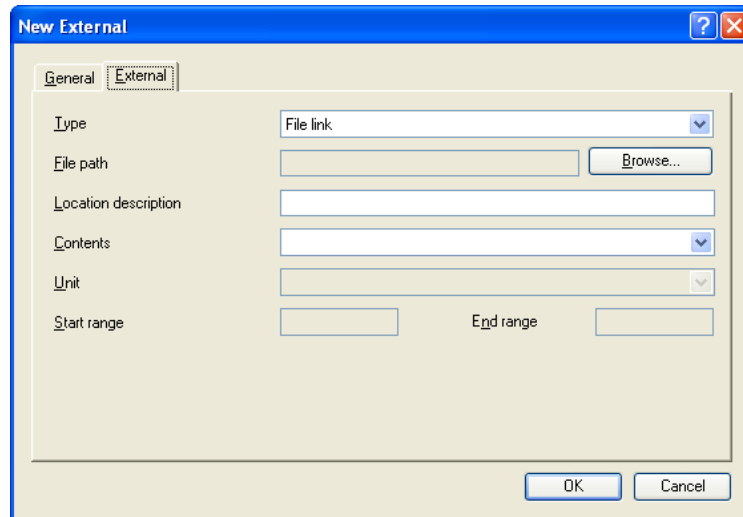


Select **EXTERNAL IN THIS FOLDER**. The following screen will be displayed:



Provide a name for the file (e.g. you tube vid, web page, etc.). **THIS IS ESSENTIAL** for importing the external link.

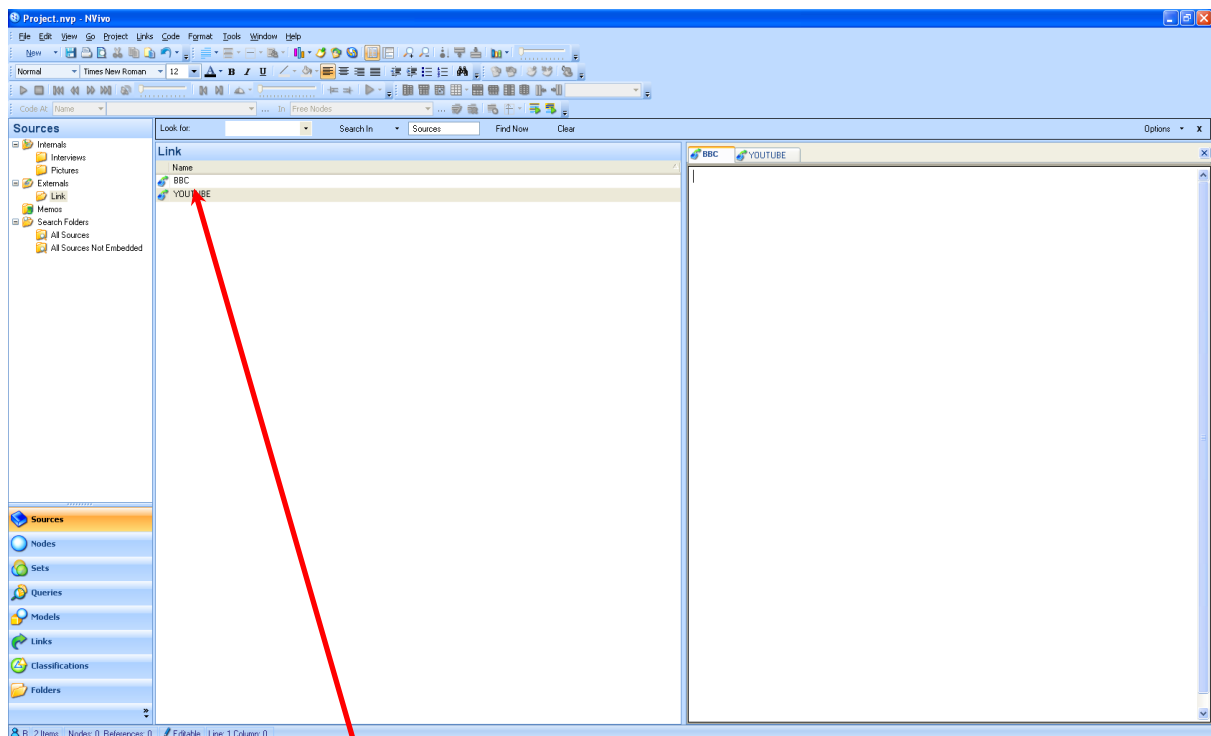
Click on the External tab, the following page will be displayed:



Click on the **FILE LINK** drop down box and select the **WEB LINK** option.

Insert the URL address into the **URL PATH** box. Click **OK**.

The page should look similar to the following screen:



To open the **EXTERNAL** file right click on the file.



Select **OPEN EXTERNAL FILE**. This will open in a new window. We can make notes about the **EXTERNAL** source in the right hand pane.

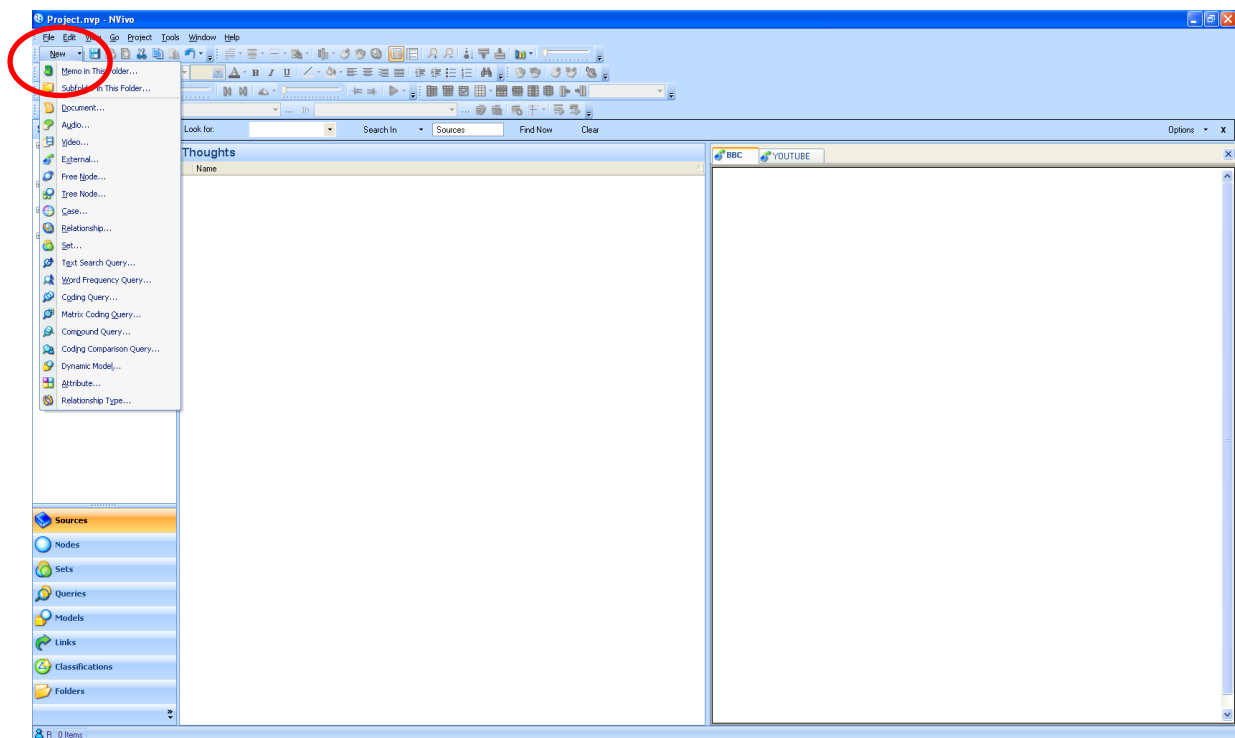
## 2.4) Creating a Memo

Some of the most important research material comes from our own thought processes. We might write field notes or record the observations of our respondents. It is a good idea to retain all of this data and use it in our analysis. Memos are sources of data and can be coded in the analysis.

Click on the **SOURCES** button.

Click on the **MEMOS** folder.

Click on the **NEW** icon in the top left hand page of the page as shown below:



Click on **MEMO IN THIS FOLDER**. The following screen will be displayed:

**New Memo**

General

Name

Description

Location: Thoughts

Size: 0 KB

Created On: 22/10/2010 11:36 By: R

Modified On: 22/10/2010 11:36 By: R

Read-only

OK Cancel

Provide a Name (e.g. respondent name or identification number) and write any other comments in the Description box below:

**Memo Properties**

General

Name: James (observations)

Description: Observations from the Interview

Location: Thoughts

Size: 1 KB

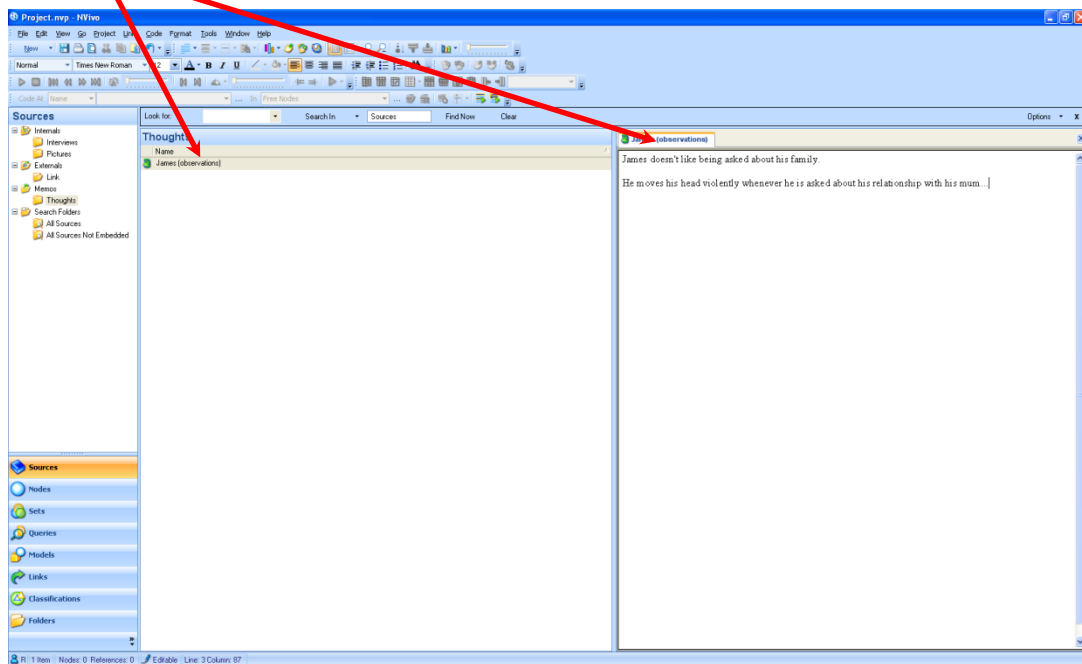
Created On: 22/10/2010 11:36 By: R

Modified On: 22/10/2010 11:41 By: R

Read-only

OK Cancel

You should be presented with a screen which allows you to write notes about the interview. In this example, the researcher has recorded some information about James (the interviewee) and his discomfort when questioned about his family.



### 3) Nodes and Coding

In this section you will learn about how to code your data. This represents the structure of our analysis:

#### **The Concept of Nodes**

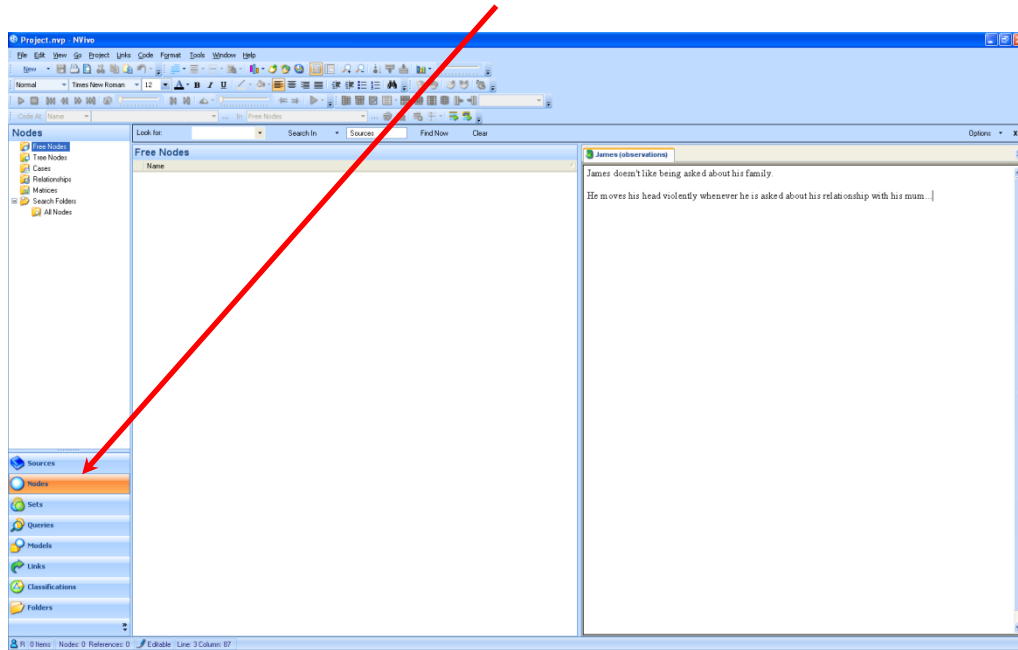
- Nodes are where you store data about ideas or, predominantly themes as you work your way through the project.
- We assign codes (or nodes) to “chunks” of the data which represent a theme. In NVivo we can create a framework of connected codes.
- When we create a node we must select all of the data that represents the label we are placing it under. This allows us to recall quotations which will evidence our framework and/or assertions about the phenomena in question.
- Some researchers will find they know certain themes in advance of analysing the data and might create nodes in advance. Some researchers create nodes as they discover new findings in the data. This is most common in areas where there is little known about the phenomena.
- A useful strategy is to start with nodes representing individual **research questions** and creating a framework (tree node) for each of these.

**Free Nodes** – These are ‘stand alone’ nodes. Free nodes are useful when you begin coding as you may not be sure as to whether they fit into a hierarchical structure. However, as you code further you may discover similarities or relationships between nodes and move them into a more logical area to represent this relationship, i.e. tree nodes.

**Tree Nodes** – These are organised into a hierarchical structure of categories and subcategories – a little like the example of attractiveness on page 7.

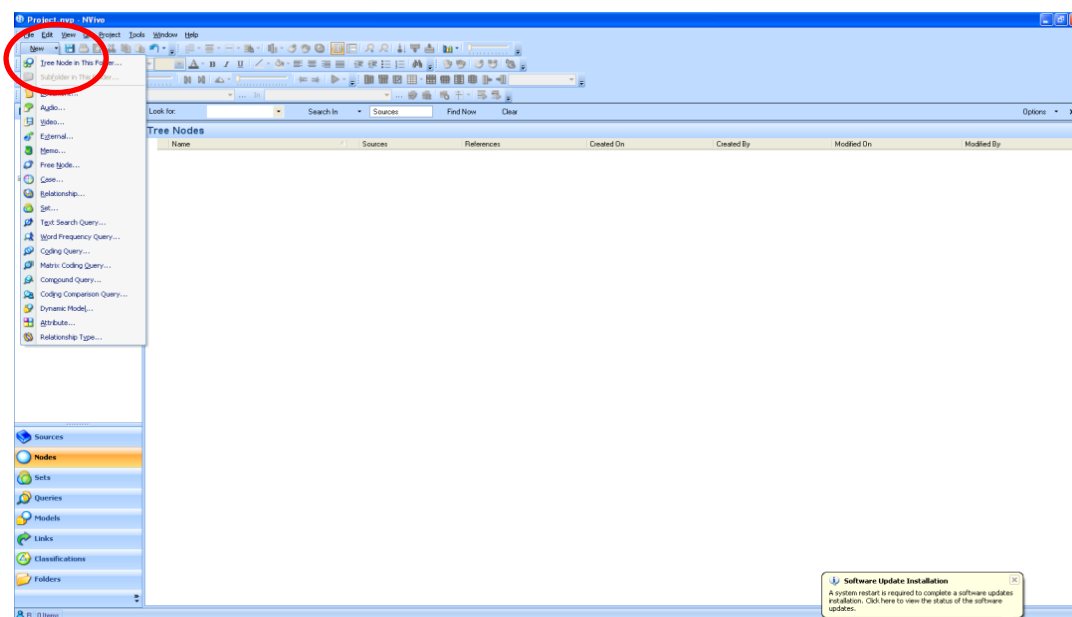
### 3.1) Creating a Node (before analysis)

In the main screen, click on the **NODES** folder on the left hand side.



This list provides us with Free Nodes and Tree Nodes. If we have several research questions that need to be answered it might be a good idea to use a Tree Node with Research Questions at the top of the hierarchical tree.

Make sure that Tree Nodes (or Free Nodes depending on your strategy) is highlighted in the Nodes Payne. Click on the **NEW** drop down box in the left hand corner of the database screen:



Click on the **TREE NODE IN THIS FOLDER** icon. The following box will be displayed:

**New Tree Node**

**General**

Name

Description

Nickname

Hierarchical name

Created On  By

Modified On  By

OK Cancel

Provide a Name for your new node (and description). As previously mentioned, calling it RQ1 or something similar helps you to focus on the analysis for separate aspects of the data – particularly when you have various research questions.

Project.nvp - NVivo

Look for: Search in Sources Find Now Clear

Name	Sources	References	Created On	Created By	Modified On	Modified By
Research Q1	0	0	25/10/2010 16:37	R	25/10/2010 16:37	R
Research Q2	0	0	25/10/2010 16:38	R	25/10/2010 16:38	R

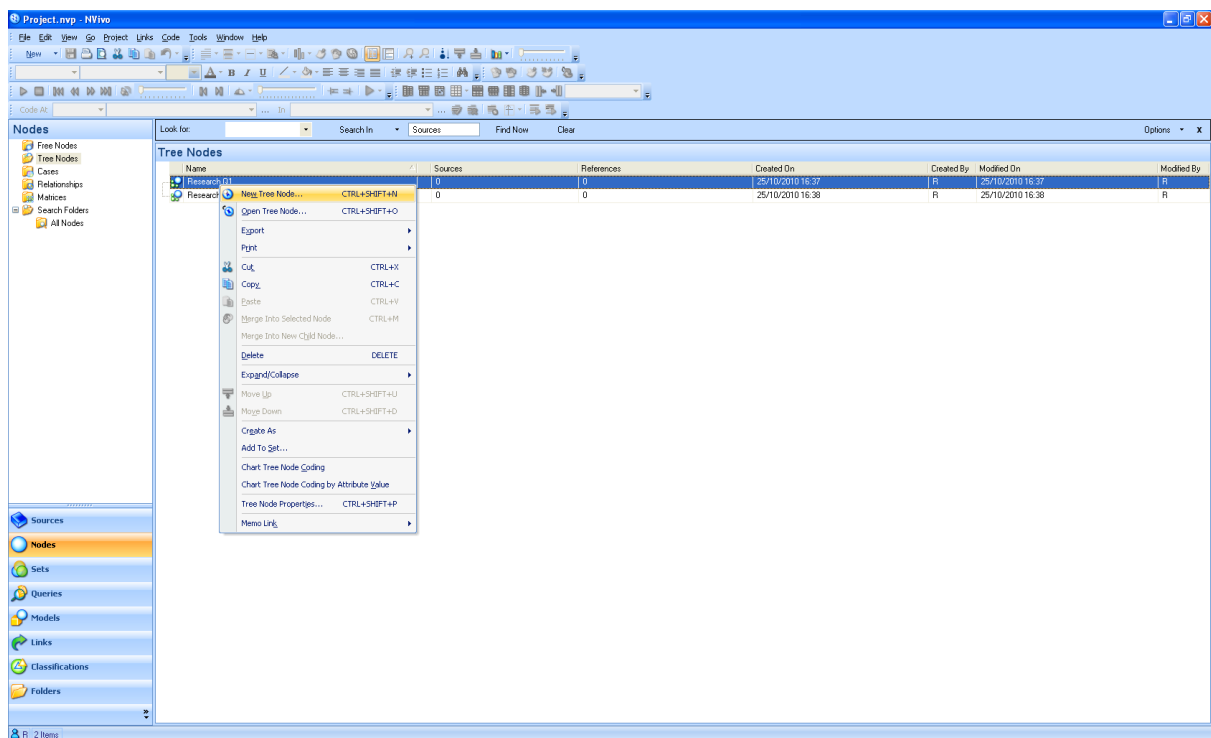
We can start to build our “tree structure” into the analysis by creating categories (sub-nodes) for underlying themes in the data. So, if RQ1 is about Communication and we know that there are four sub-themes for this:

### Research Question 1 (RQ1)

- Communication
  - Trust
  - Conversation
  - Relationship
  - Language

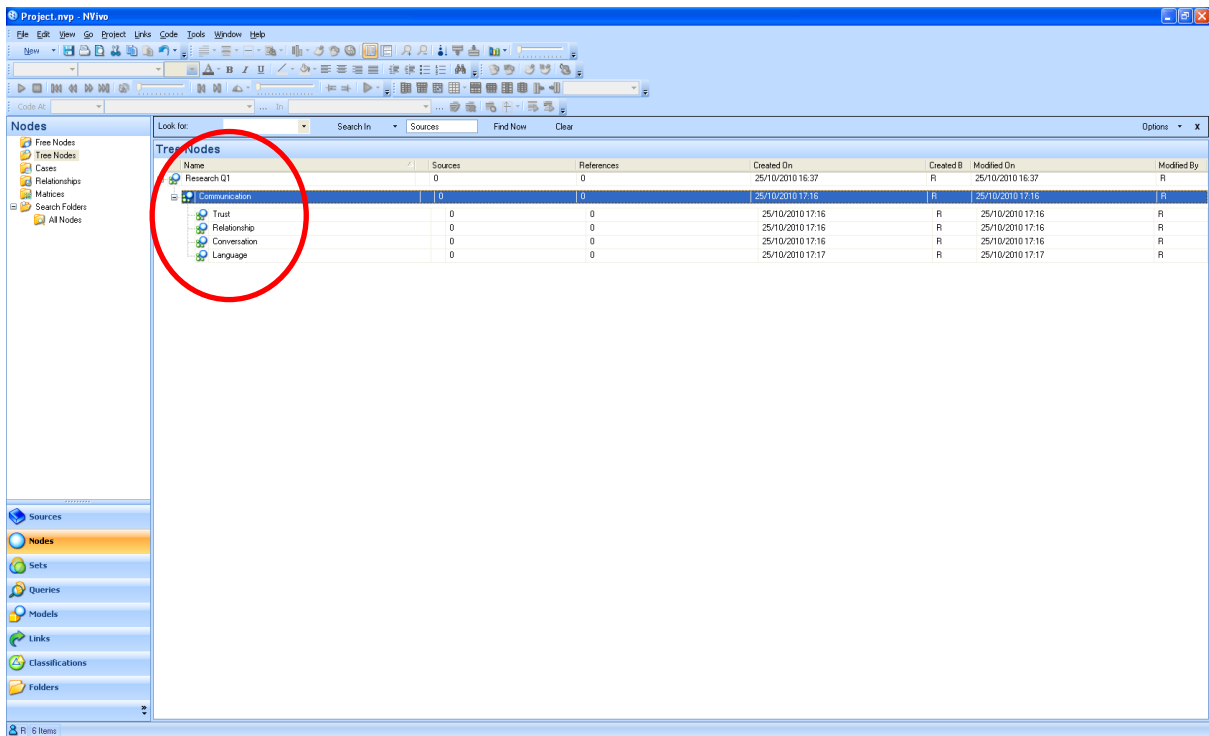
We can organise this ready to code data to each of these aspects of communication directly.

On our first node (Research Question 1), right click and select **NEW TREE NODE.**



Provide a name for the new tree node (i.e. Communication).

We can create a second-level tree node (e.g. trust, relationship, conversation and language) by right clicking on the first-level tree node and creating names for each of the second-level nodes. In the end we have a two-level model ready to code data:

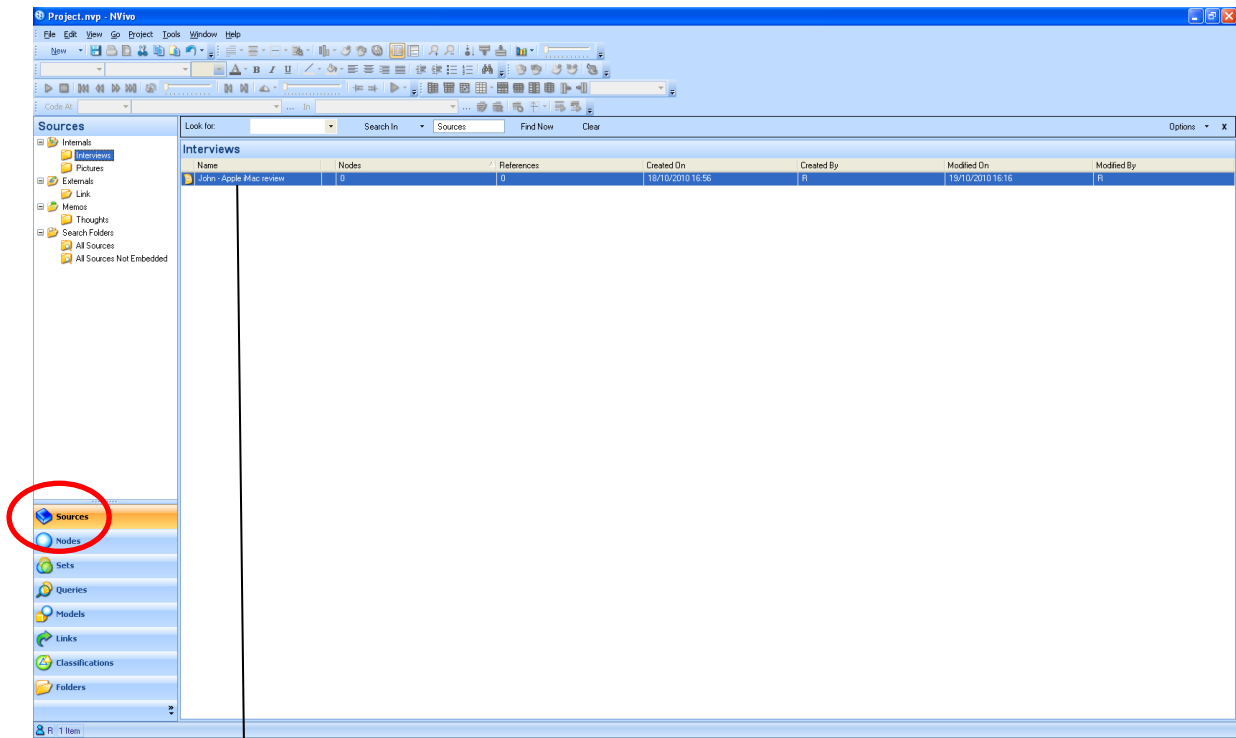


### 3.2) Coding Word Documents

We are able to select nodes (or tree nodes) in advance of our analysis. In some cases we will code the data directly into these pre-determined categories. In other instances we might add further nodes as we go through the data and identify new themes. In some cases we might even start with **NO** nodes and allow the data to determine themes – all research projects are different.

To begin the analysis, click on the sources icon on the left-hand side of the home page.

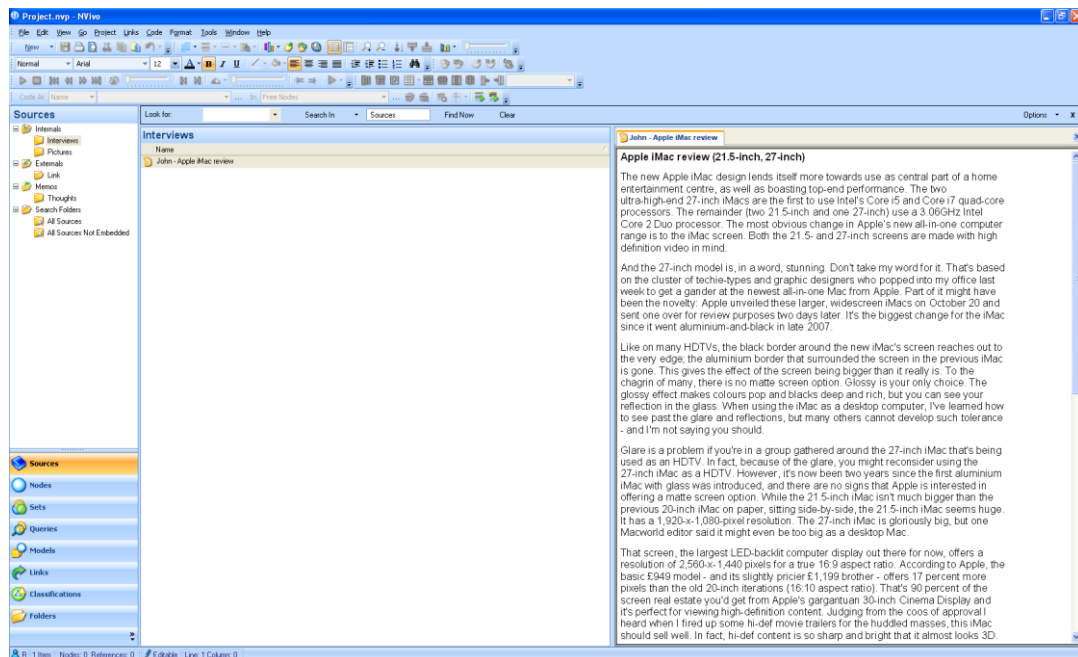




Select the source that you wish to analyse (internal, externals, interview etc).

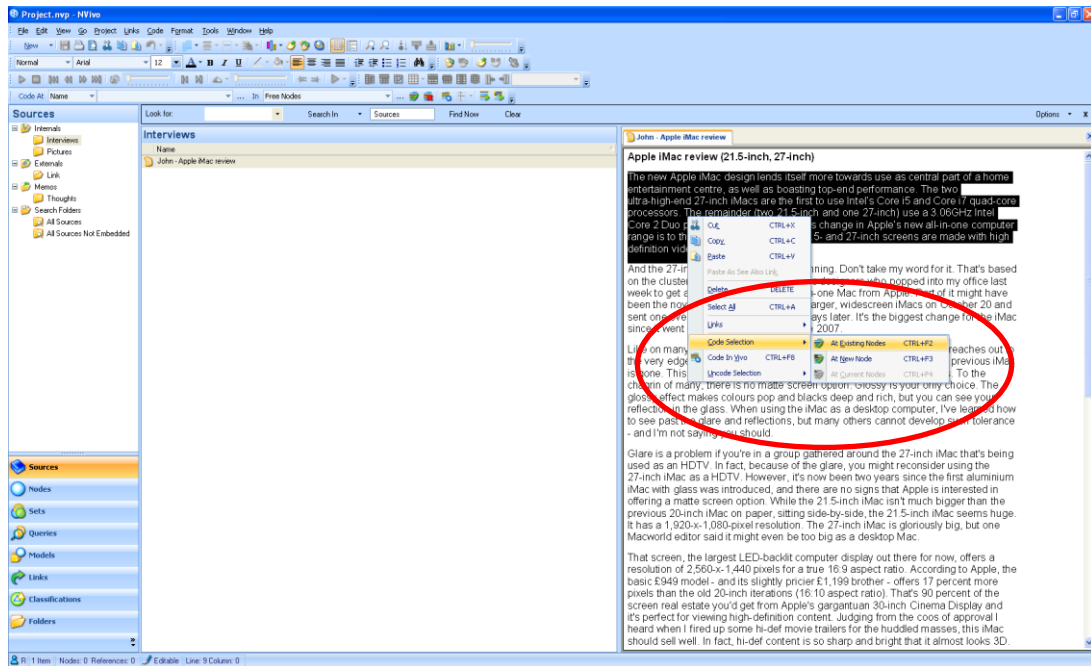
In this instance we are looking at Internals: Interviews: John Review. We can double click on the source to present the data.

Once we have opened up the source the data will be presented as provided in the screen below:

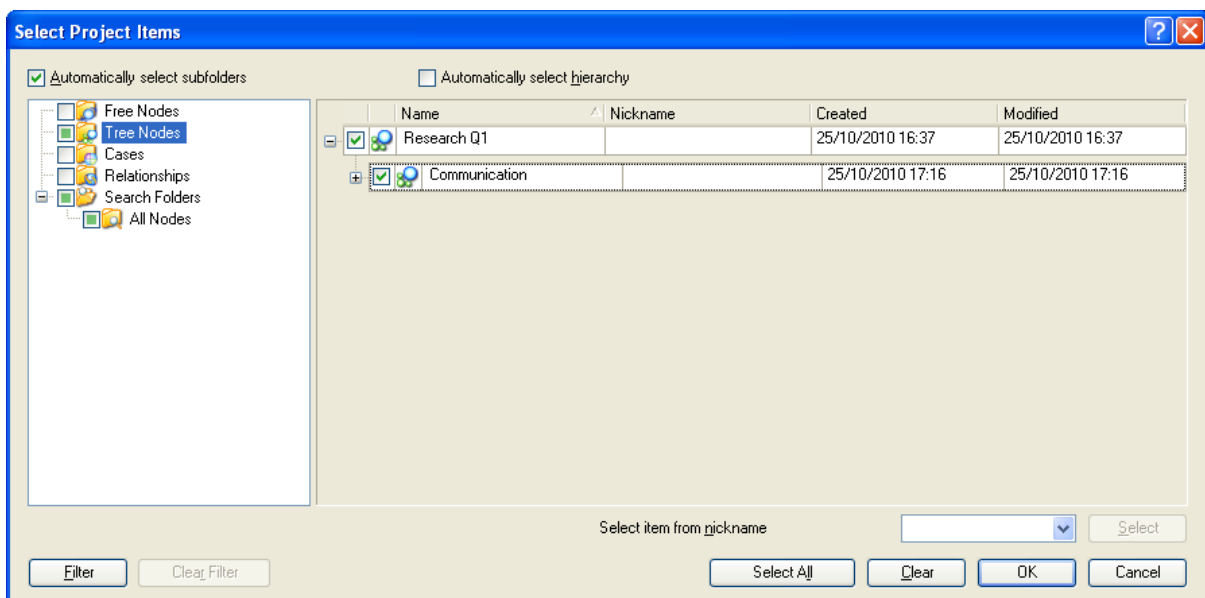


We can scan through the document looking for aspects to code. We might find that one section of the data is important. We therefore, highlight the relevant text.

After the text is highlighted, right-click and select **CODE SELECTION**. When a node exists for the data, select **AT EXISTING NODES**. Alternatively, when there is no current node you can create a new one by marking **AT NEW NODE**.



If we mark the coded text as relating to an existing node – say for example Communication – we are presented with the following screen:



Make sure that the relevant box is marked. In this example we want Research Q1 and Communication marked so that the data will be stored underneath these categories. Click **OK**.

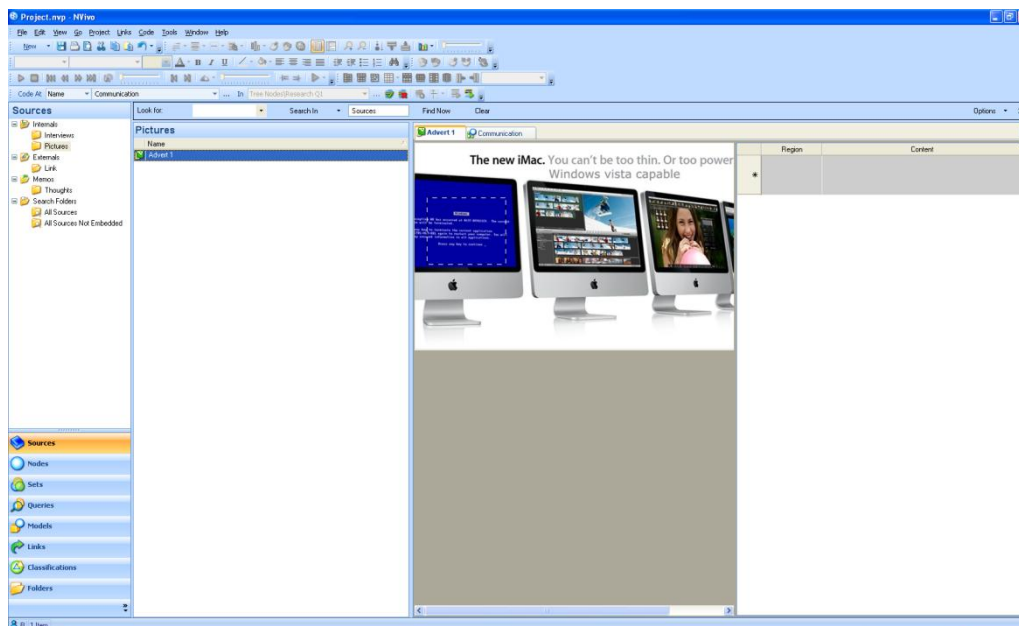
We might want to take the coding of our data to a higher level of abstraction (e.g. trust, relationship, language, etc.). Therefore we could perform a second trawl of the data. We would then assign data to higher-level nodes in exactly the same way as above.

### 3.3) Coding Pictures

We may wish to analyse and then code picture data. This is possible in NVivo and we would therefore integrate our analyses of text and visual data into our node system.

Firstly, click on **SOURCES**.

Identify the relevant picture file and double click on it within the main homepage. Your screen should look similar to that below:

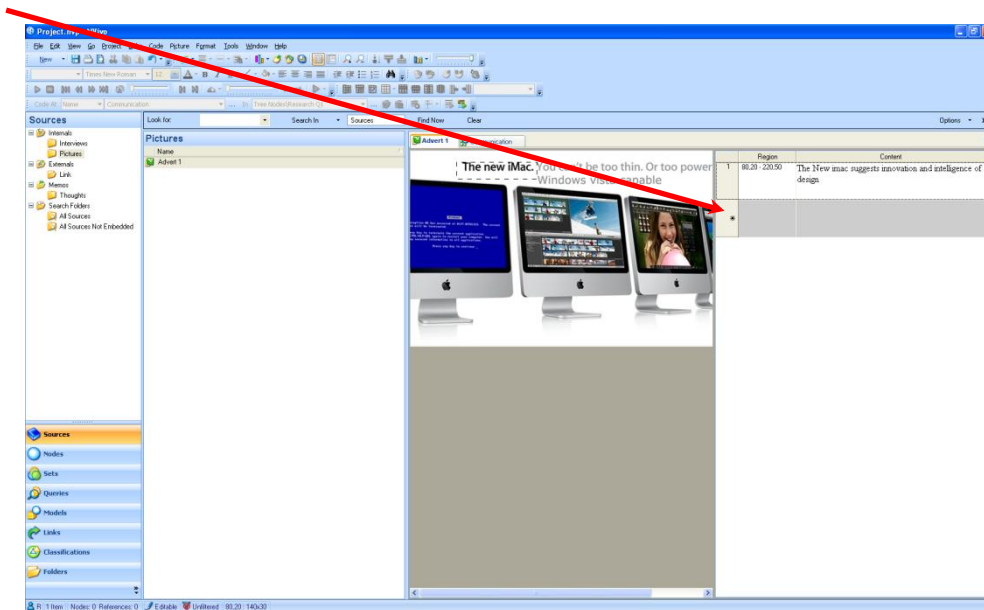


We analyse aspects of the picture by annotating our feelings about it. In some cases respondents may have annotated the pictures for us.

On the picture, click and drag the rectangle over the area you wish to analyse.

Right click whilst hovering over the rectangle and select **INSERT ROW**.

This will provide a 'co-ordinate' for the highlighted aspect of the picture in the third screen. We can then provide a description of the highlighted area. This is shown below:



To code the data, highlight the annotated text and right-click.

Select **CODE SELECTION**.

Choose either: **AT EXISTING NODES** or at **NEW NODE**.

In this example, our annotation relates to Communication. Therefore, we select

**AT EXISTING NODES** and code the data to Communication (as in Section 3.2).

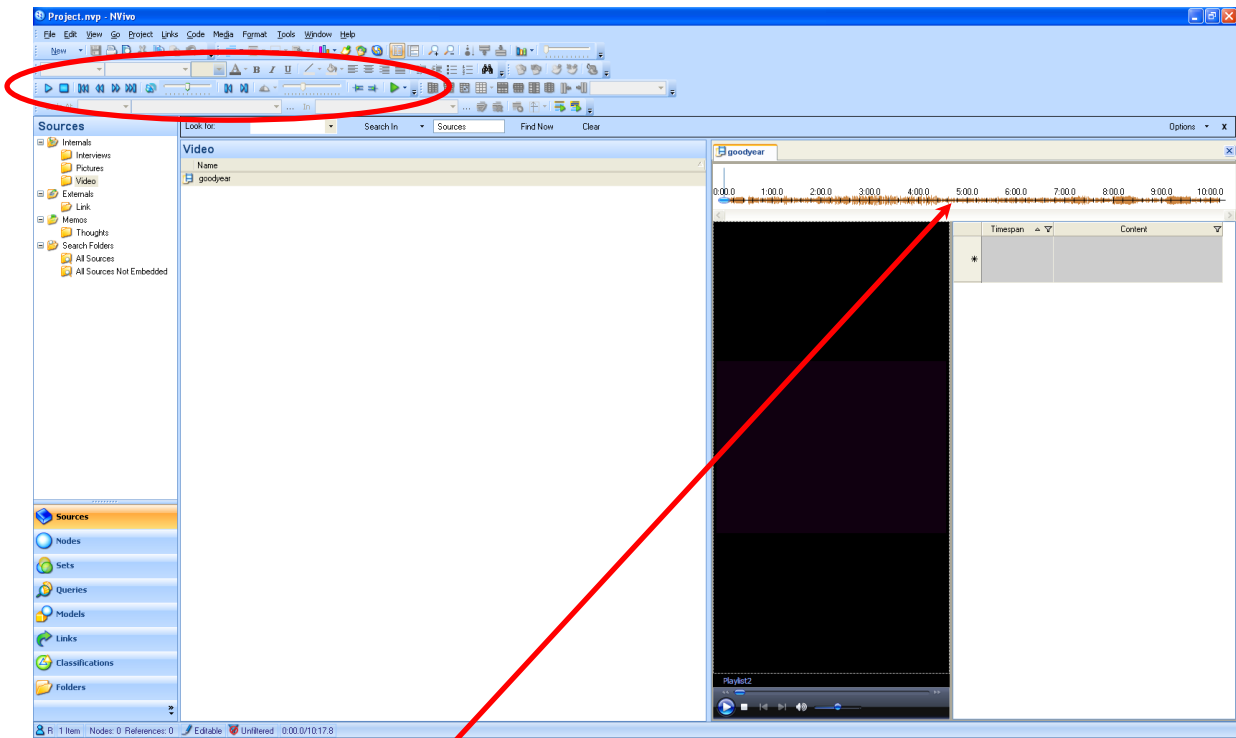
### 3.4) Coding Video Files

To code (analyse) our video files we need to click on the **SOURCES** icon.

Select the file which contains the video.

Double click on the video file in the main page – this will bring up the video and areas for annotation.

The video can be played using the controls located in the file and at the top of the icon bar:

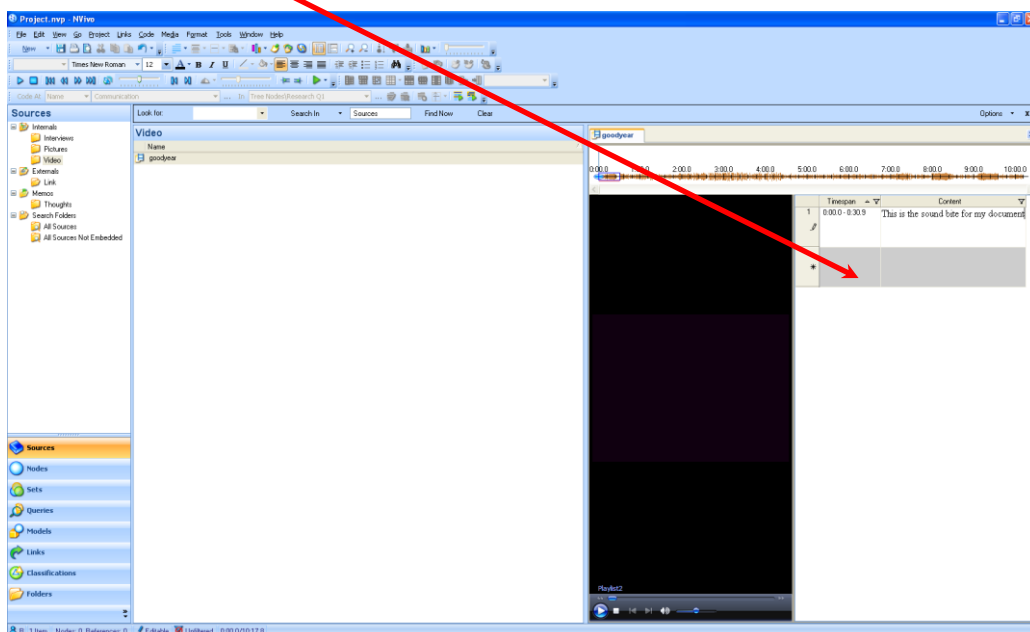


You are also provided with a time bar that can be used to code the data.

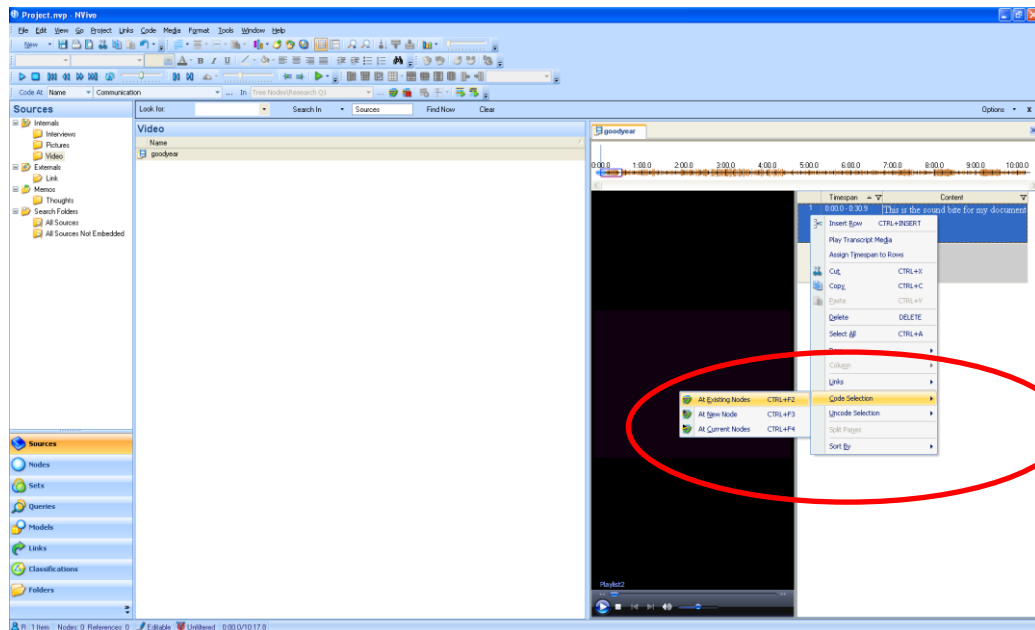
For example, you may want to transcribe or annotate notes for the first 30 second of the video. Therefore click and ring-fence between 0-30 seconds in the time bar.

Right-click on the ring-fenced time bar and select **ADD ROW**. This will automatically fix the time span in the **CONTENT** bar for analysis.

In the **CONTENT** bar transcribe the video (or audio file – both work here) or just add annotations.



To code the data, highlight the time span (e.g. 0-30 seconds) in the **CONTENT** bar, right-click and select **CODE SELECTION** and **AT EXISTING NODE** or at **NEW NODE**:



### 3.5) Coding Other Internal Sources

We can code data from our **MEMOS** in exactly the same way as other sources – specifically documents – as detailed in section 2.4.

### 3.6) Coding External Sources (e.g. Video)

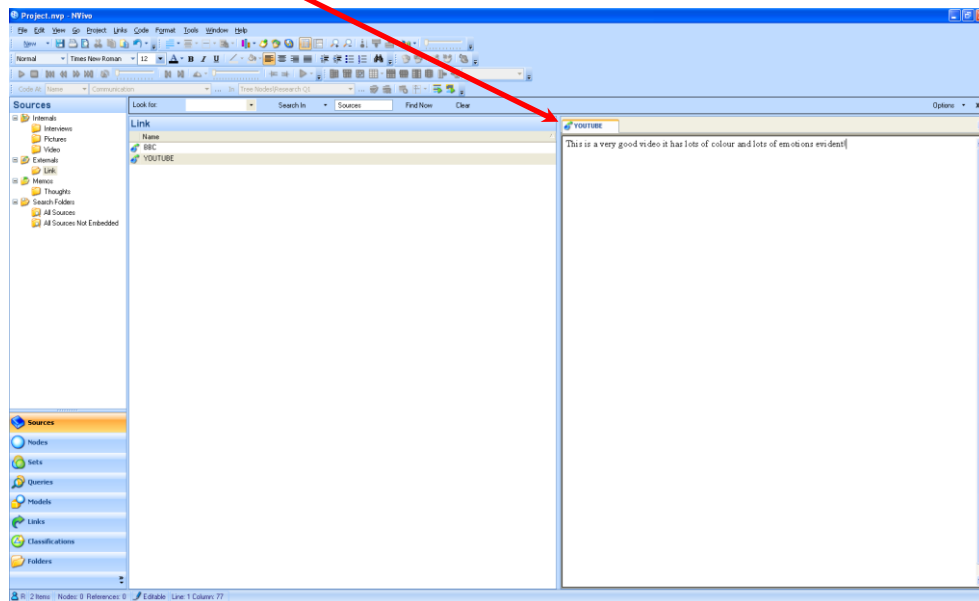
We may be dealing with external files. In some instances we can use methods for coding such as those discussed in Section 3.2 and 3.3. In these situations we are faced with the option of writing notes and coding this as data.

Firstly, select **SOURCES** and click on the **EXTERNAL** file.

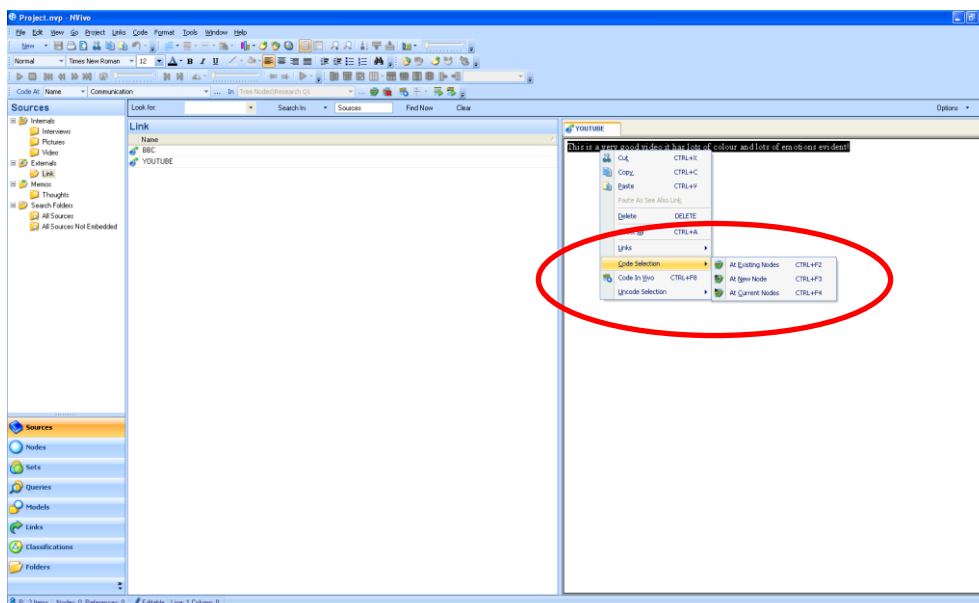
Select the source that requires analysis. Double-click to open up a notepad on the right hand side of the screen.

Right-click on the file and select **OPEN EXTERNAL FILE**. If the file is a webpage (inc. YouTube video) the file will be opened in a separate window.

On the right hand side of the screen, we are able to write down notes relating to the external file:



We can code these notes in exactly the same way as any other type of source. Firstly right-click on relevant text and select **CODE SELECTION** and choose whether you wish to code the data into an Existing or New node.



## 4) Exploring The Data

### Exploring Coded Data

Once you have coded data into your tree nodes it will be in a form that is easily manageable and accessible.

When writing up your research you will want to explore the data in a way that enables you to retrieve the most important (and relevant) themes for inclusion in your report.

### 4.1) Exploring Nodes

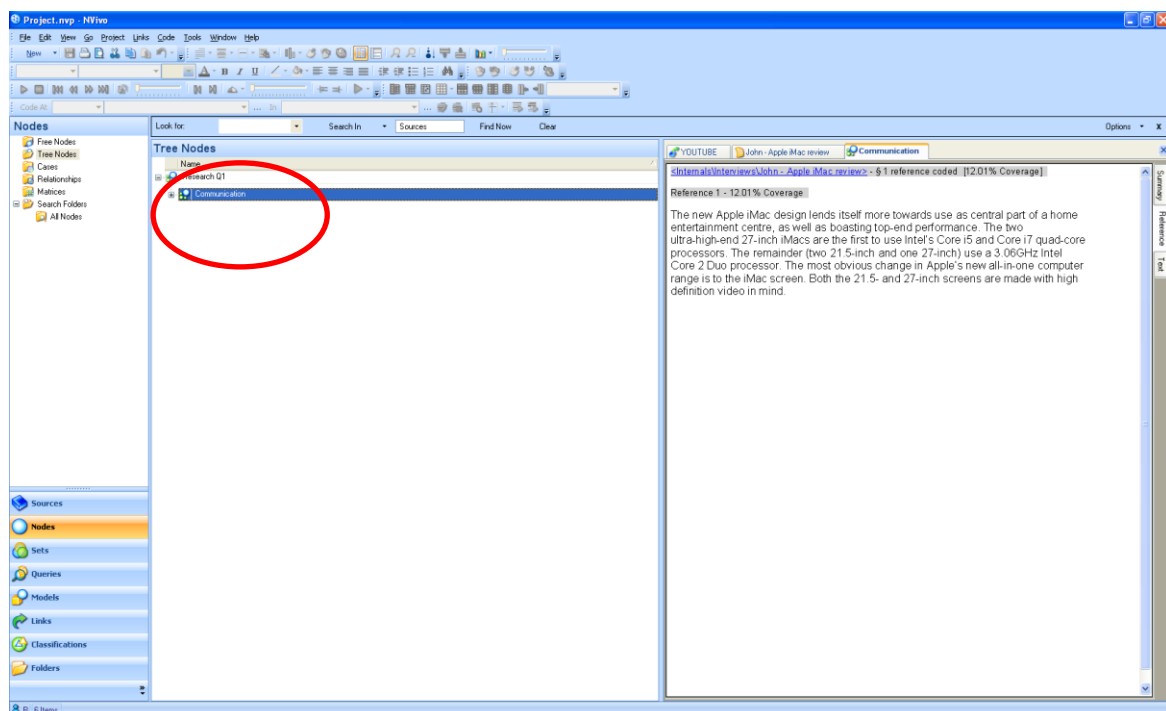
As an initial review of the data analysis it is always worth reviewing the nodes (free or tree).

Begin with clicking on the **NODES** icon on the left-hand side of the screen.

Select either **FREE NODES** (if used) or **TREE NODES** (if used).

Select the theme (or node/sub-node) you wish to assess and double click on it. This will bring all the coded text relating to that specific theme up in the right-hand screen.

In this instance, we review all the data relating to **COMMUNICATION**, but we could do this for any of our nodes or sub-nodes.

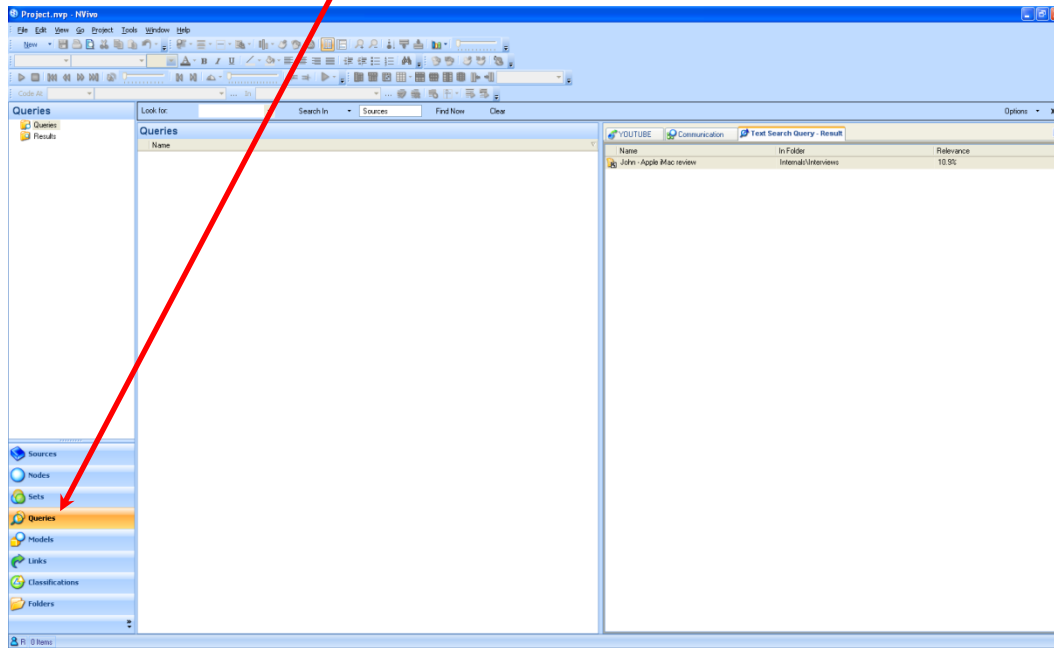




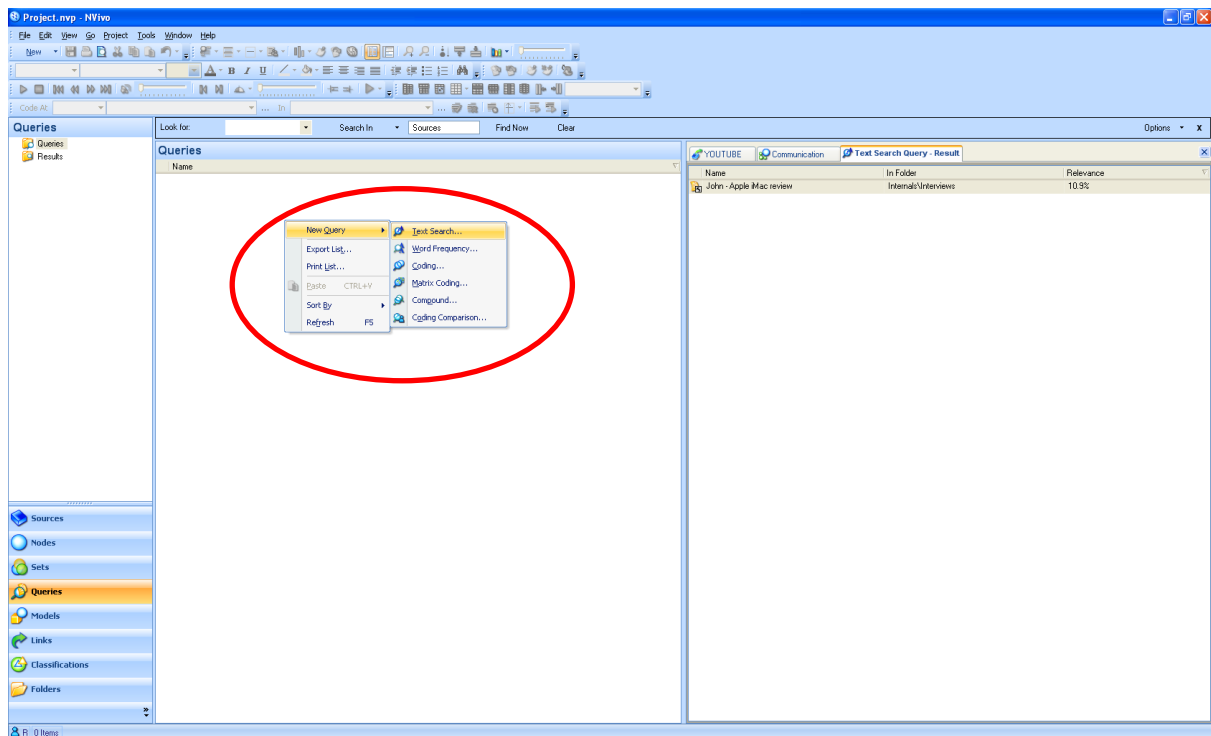
## 4.2) Text Searches Using Queries

A query is a way of searching for specific text in our data. It is similar to the “Find/Replace” facility available in most Microsoft Office packages.

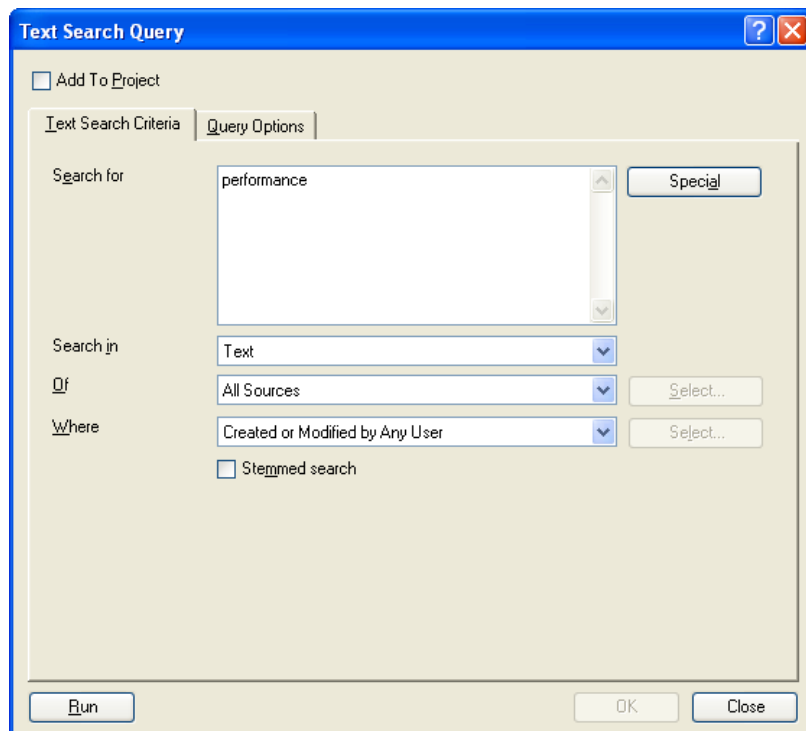
Firstly click on the **QUERIES** tab on the left hand side of the main window:



In the centre of the screen right click and select **NEW QUERY** and then **TEXT SEARCH**.

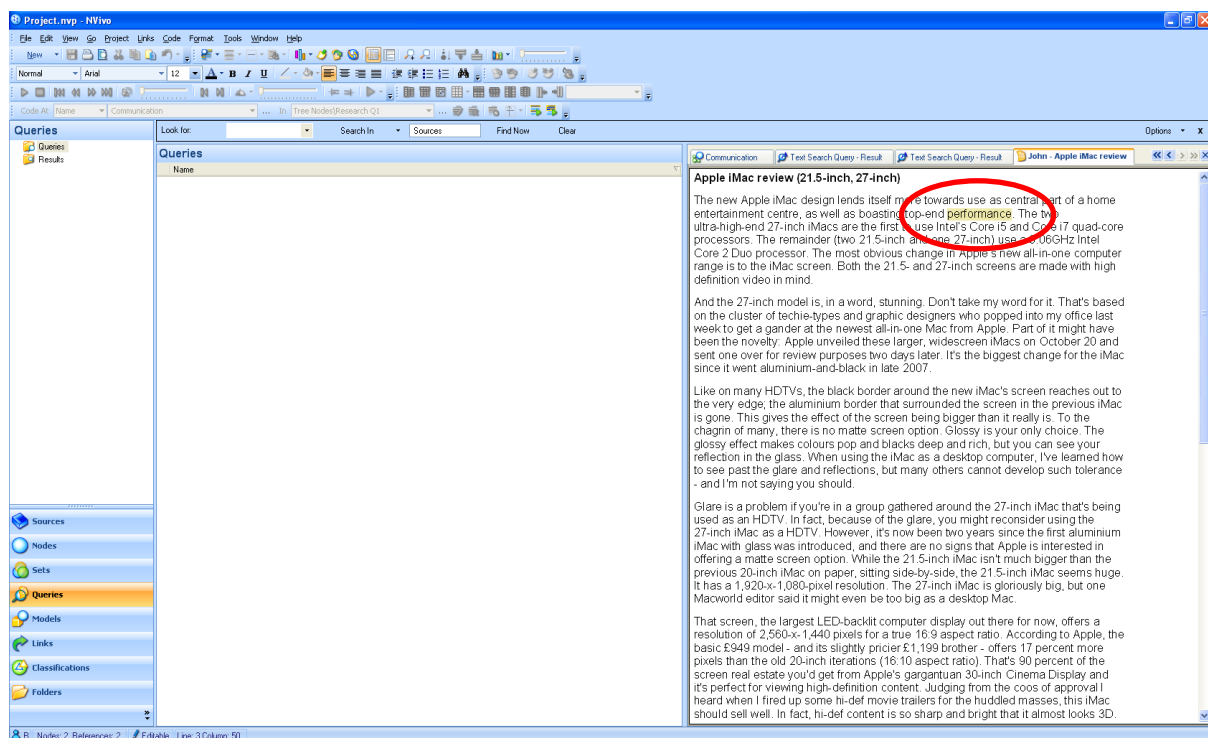


This produces a new window, which you can specify a word to be found in the entire sources list within the database. In this instance we specify the word “performance”.



Click on **RUN**.

In the screen on the right-hand side of the page a new-tab is created that has all the files relating to the specified word (i.e. performance). Click on the sources and you will find the key words are highlighted:



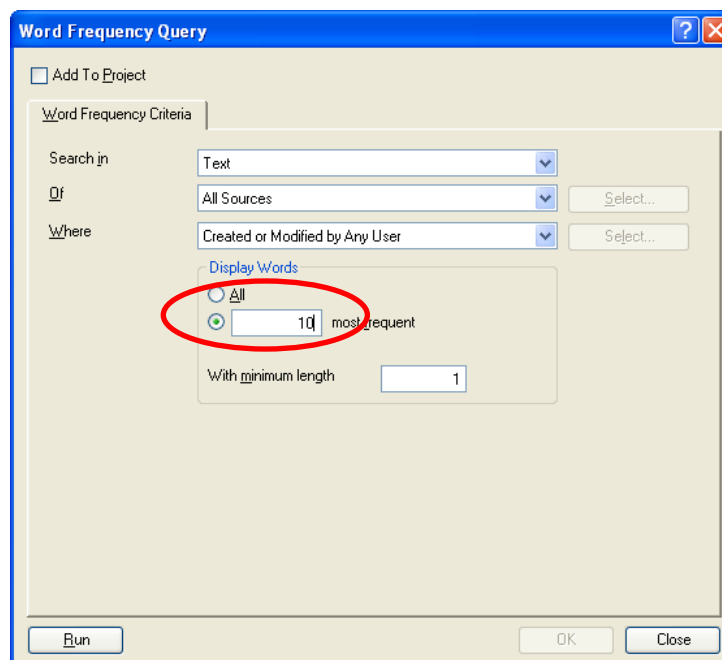
### 4.3) Counts of Specific Words

We can count the number of times we see a word or phrase within the database (i.e. all our sources). This is useful for quantifying data and also is integral to content analysis methods. We can find the most used words in the dataset.

Firstly click on the **QUERIES** tab on the left hand side of the main window:

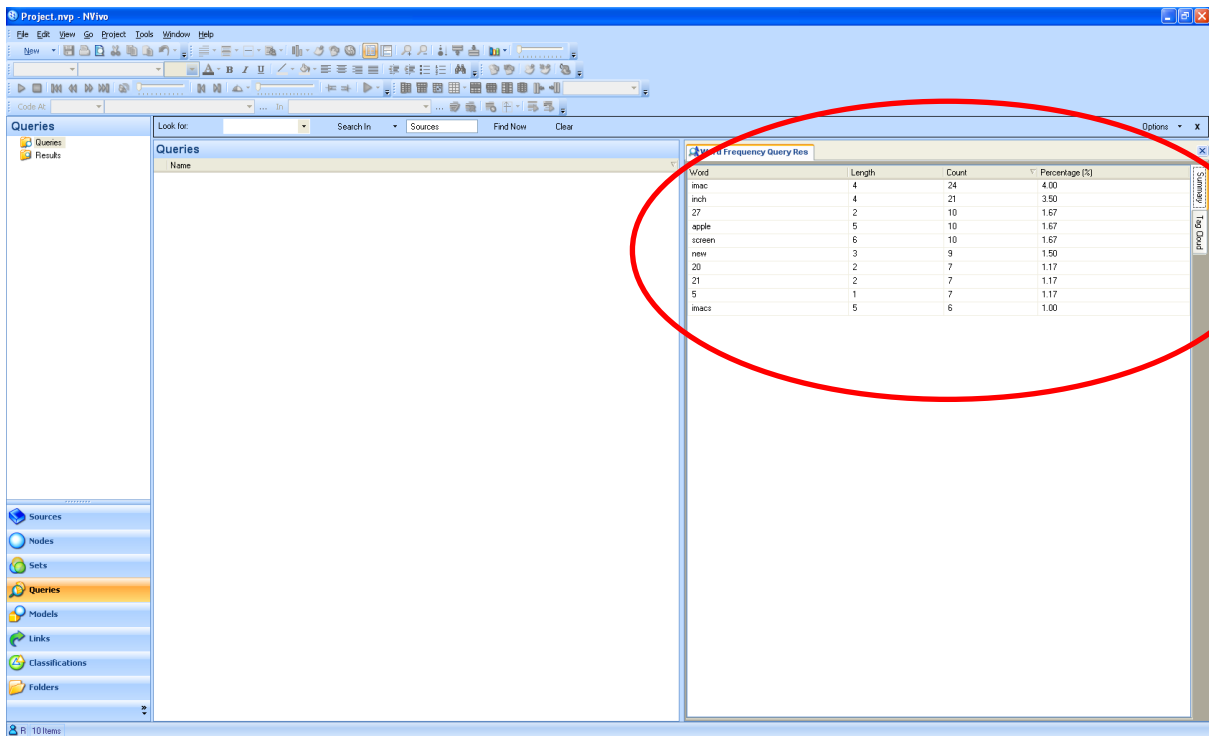
In the centre of the screen right click and select **NEW QUERY** and then **WORD FREQUENCY**.

Specify the number of words that you would like to review (i.e. the top stated words). In this example we are looking for the 10 most used words:



Click on **RUN**.

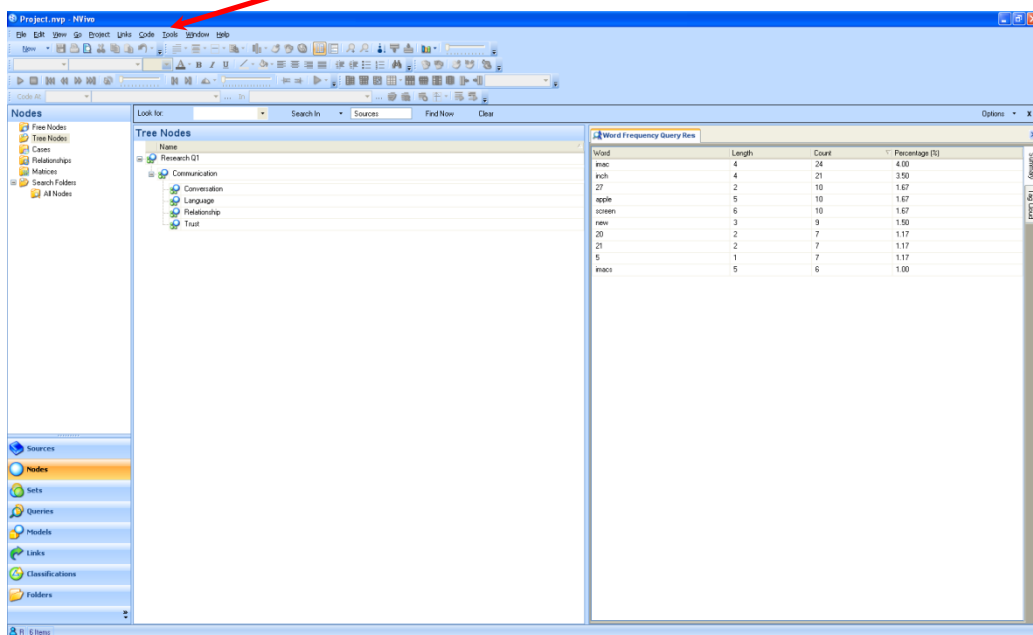
In the right-hand screen we are provided with diagnostic statistics for the top 10 most used words in the database. This is shown in the picture below:



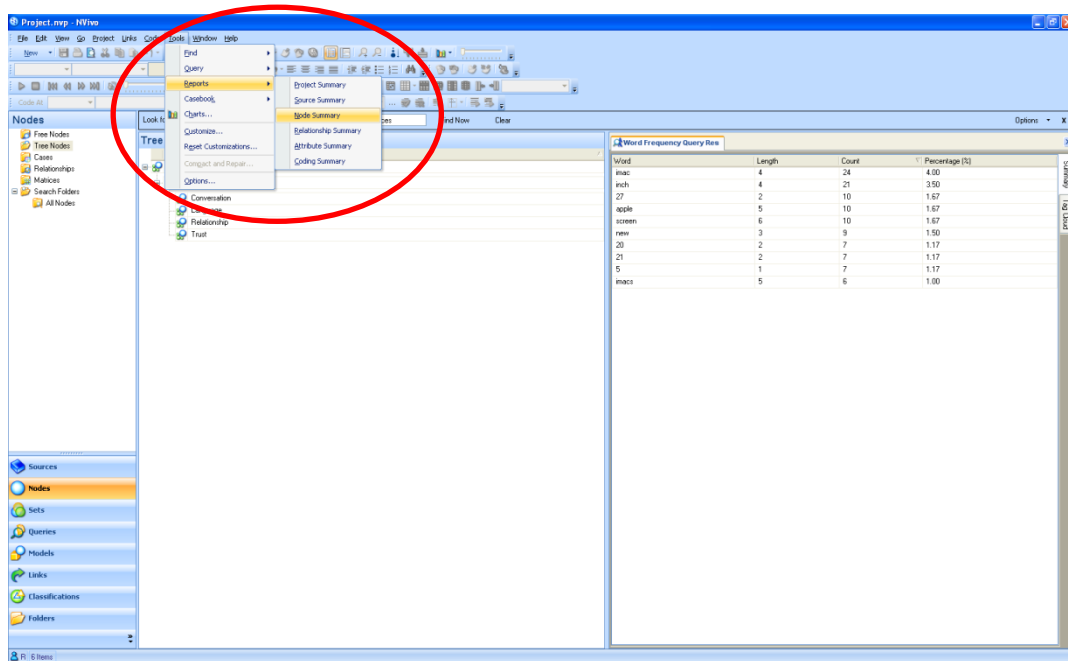
#### 4.4) Printing Node Reports

In NVivo we are able to print out node reports for our analysis. This is a good method for showing the logic applied by the researcher/research team.

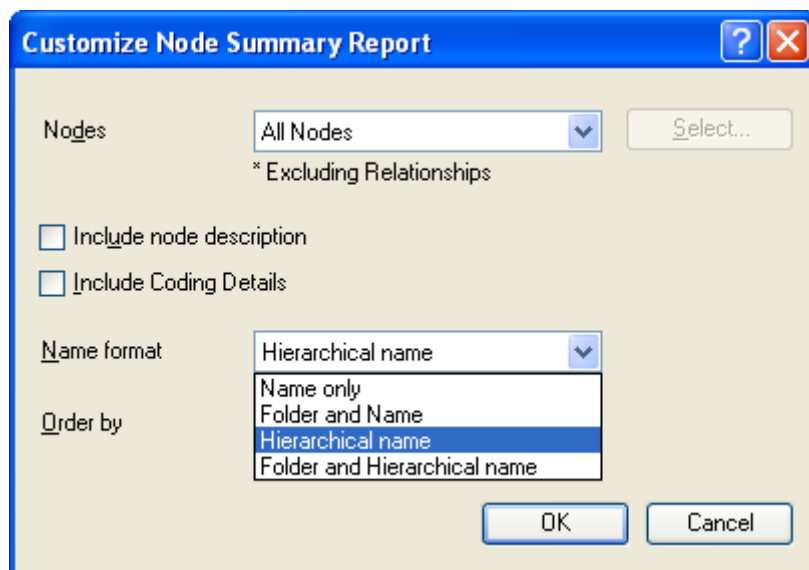
To print your node report, select **TOOLS** at the top of the main window:



From the drop-down menu select **REPORTS: NODE SUMMARY**



You will be provided with the following box:



Under **NODES** make sure that **ALL NODES** is selected (as above).

Under **NAME FORMAT**, make sure that you select the **HIERARCHICAL NAME** format (as above).

Under **ORDER BY** make sure that **TYPE AND NAME** is selected.

Click .

You will be presented with a Tree Node Report which can be printed off.

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For further details see:

Bazeley, P. (2010) Qualitative Data Analysis with NVivo. London: Sage Publications.

Or have a look at the excellent online resources provided by QSR:

<http://download.qsrinternational.com/Document/NVivo8/NVivo8-Help-Using-the-Software.pdf>