Dear Data

Lesson 2: What's the story?



Starter Task: From last week, what depth questions could you ask for these topics?

- 1. The emotions you feel
- The sounds you hear

Learning Intentions

- To find a story in the data collected
- To complete a more complex tally chart
- Use a more complex tally chart to explore your data for unusual patterns

Success Criteria

- Found a story in your data
- Worked on (hopefully completed) your complex tally chart
- Identified any unusual data in your collection

A simple visualisation



Finding the question for your visualisation

- What you did
- Where you did it
- The size of books you own
- How much you have drunk
- The clothes you wear (or don't)
- Where you spend your time
- What do you do with your days
- Where you keep your books

The answer to the question will be shown in our visualisation.

To get started we are going to find how many unique answers there are to each of our data depth questions.

Step 1: Analyse Level 1

- Make a copy of the table on the right.
- The first question was:
 - How did I consume the media?
- Look at the example answers on the next slide. There are 4 possible answers in Level 1.

 Enter the number 4 in your table at Level 1

Data Scie	nce: Numb	er of Uniqu	ue Answers	s at Each Le	vel	
Lvl1						
Lvl2						
Lvl3						
Lvl4						

Example Answers – How did I consume the media?

	An	swers to	your ques	tions			33		st.	Answe	ers to your	question	ıs	
Lvl 1			Listenin	ng				Lvl 1			Read	ing		
Lvl 2		Phone		0	.5 Hour	S		Lvl 2	Р	rinted Pa	per		1 Hour	
Lvl 3	Tue	sday	22:	15	Bedr	room		Lvl 3	Tue	esday	19:0	00	Living R	loom
<u>Lvl</u> 4	Bed	Fiction	Entertainment				. 35	Lvl 4	Arm Chair	Non- Fiction	Work			
	An	swers to	your ques	tions						Answe	ers to your	question	ns	
Lvl 1			Watchir	ng				Lvl 1			Playi	ng		
Lvl 2	Desk	top Comp	outer	0	.5 Hour	s	90	Lvl 2	Des	ktop Com	puter		1.5 Hours	
Lvl 3	Tue	sday	20:0	00	Stu	ıdy		Lvl 3	Tue	esday	20:	30	Stud	ly
Lvl 4	Desk Chair	Youtube	Work					Lvl 4	Desk Chair	Game	Entertainment			

Step 2 – Analyse Step 2

- The second question was:
 - What did I consume the media on?
- Look at the example answers on the next slide. There are 8 possible answers in Level 2.
- Enter the number 8 in your table at Level 2

Example Answers – What did I consume the media on?

	Ar	swers to	your ques	tions				Answei	rs to your o	uestion	s	
Lvl 1			Listening			Lvl 1			Read	•		
Lvl 2		Phone		C).5 Hours	Lvl 2	F	Printed Pa	per	_	1 Hour	
Lvl 3	Tuesd	ay	22:1	15	Bedroom	Lvl 3	Tue	esday	19:0	00	Living F	Room
Lvl 4	Bed	Music	Entertainment			Lvl 4	Arm Chair	Non- Fiction	Work			
	Ar	swers to	your ques	tions			38	Answei	rs to your o	question	s	
Lvl 1	46		Watching			Lvl 1			Playi	ing		
Lvl 2		iPad		C).5 Hours	Lvl 2	C	inema Scr	reen		1.5 Hours	
Lvl 3	Tuesd	ay	20:0	00	Study	Lvl 3	Tue	esday	20:3	30	Stud	dy
Lvl 4	Desk Chair	Youtube	Work			Lvl 4	Seat	Movie	Entertainment			
	Ar	swers to	your ques	tions				Answei	rs to your o	question	s	9
Lvl 1	6		Listening			Lvl 1			Read	ing		
Lvl 2		TV		C).5 Hours	Lvl 2	Des	ktop Con	nputer		1 Hour	
Lvl 3	Tuesd	ay	22:1	15	Bedroom	Lvl 3	Tue	esday	19:0	00	Living F	Room
Lvl 4	Bed	Netflix	Entertainment			Lvl 4	Arm Chair	Non- Fiction	Work			
	Ar	swers to	your ques	tions				Answei	rs to your o	question	s	
Lvl 1	28	3	Watching			Lvl 1			Playi	ing		
Lvl 2	ı	Record		C).5 Hours	Lvl 2	El	ectronic (Book		1.5 Hours	
Lvl 3	Sunda	ау	10:0	00	Living Room	Lvl 3	Tue	esday	20:3	30	Stud	dy
Lvl 4	Dining Table	Music	Entertainment			Lvl 4	Desk Chair	Fiction	Entertainment			

|Finish your analysis

- Continue the same way through all your questions.
- Sometimes you may want to group data rather than collecting individually for example
 - times(06:15, 15:00, 22:00) to time of day (morning, afternoon, night)
 - Duration into <2hours 2 to 4 hours 5+ hours

 Once you have finished analysing your data you have a simple visualisation like this

Data Scie	nce: Numb	er of Uniqu	ue Answers	s at Each Le	vel	
Lvl1	4					
Lvl2	8			3		
Lvl3	7		4		7	
Lvl4	9	13	4			

A more complex tally chart



Our Goal

We are going to create a more detailed tally chart.

What do you think it is telling you?

Our goal is to make one of these for the data you collected in part 1.

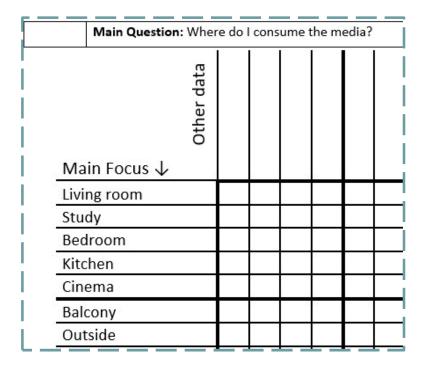
Vain Focus Other data	Listening	Watching	Reading	Playing	Morning	Afternoon	Evening	Night	<1 Hour	1 – 2 hours	3 -5 hours	5 – 8 hours	>8 hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Living Room	П	11111	1		111		Ш	I,	1	ШШ				1	I	1	_	1		11	
Dining Room																					
Study	I	111		Ш	1	1	Ш		1	111	П		1		П	1			Ш	1	
Kitchen	1	П				1	П		1	П							-	1		1	
Bedroom	ШШ		П					ШШ	11111						1	1	Ξ	1	1		
Balcony			1		1					1										j	
Cinema		1				1					I							1			
Outside	1				1					1								3		Î	

Step 1 – What is our main question?

- The first focus is on the question we are going to create our visual around.
- These are the two areas of the sheet to focus on with this task.
- Lets look at some examples with the sample data

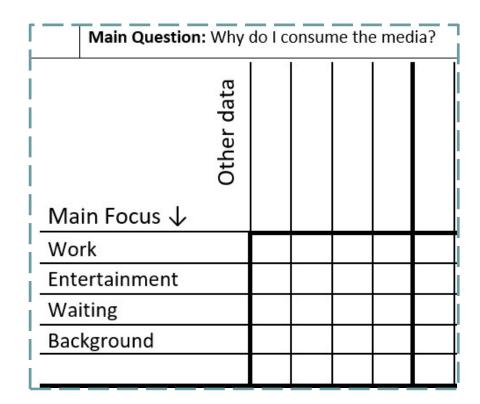
!Main Focus on location

- Look through the answer cards and find the unique answers to the "where" question.
- Put these answers in the main focus column



| Main Focus on why

- Another way to look at the data is to change our main focus to answer the question "why did I consume the media"
- Look through the answer cards and find the unique answers to the "why" question.
- Put these answers in the main focus column



Step 2 – Adding more data

- The next focus is on the answers to the unique answers to the other questions
- The top row of the sheet will be used to add this new information
- Lets look at some examples with the sample data (using the location main focus)

Step 2 – How I consumed the media

- Start with the example where the main focus is location.
- Add the answers to the "how" question to the top row of the table.

Main Focus ↓	Other data	Listening	Watching	Reading	Playing
Living room				2	
Study					2
Bedroom	8			8 30	68
Kitchen	8	3		S 30	86
Cinema	8				
Balcony	8.0	8		8 80	45
Outside	8				60

Step 3 – When did I consume the media?

 Now add the answers to the question "When did I consume the media"

 Main Focus ↓	Other data	Listening	Watching	Reading	Playing	Morning	Afternoon	Evening	Night
Living room						×			
Study	33								
Bedroom	33				3	56 -			
Kitchen									
Cinema						3			
Balcony						S.			
Outside									

Step 4 – For how long did I consume the media?

- Now add the answers to the question "For how did I consume the media?"
- Carry on adding information to the table until you have the answers to all your remaining questions along the top row

Main O	uestio	n: Wh	ere do	I cons	ume t	he me	dia?							
Main Focus ↓	Other data	Listening	Watching	Reading	Playing	Morning	Afternoon	Evening	Night	<1 hour	1-3 hours	3-5 hours	5-8 hours	>8 hours
Living room														
Study														
Bedroom														
Kitchen			e 30	15	55	50			Α					
Cinema				90										
Balcony														
Outside														

Step 4 – Preparing to add the data

- The next focus is tallying all the combinations of data so that we can find something interesting in the data.
- Start with your empty table as shown here.

Main Focus ↓	Other data	Listening	Watching	Reading	Playing	Morning	Afternoon	Evening	Night	<1 hour	1-3 hours	3-5 hours	5-8 hours	>8 hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Living room																					
Study																					
Bedroom																					
Kitchen																					
Cinema																					
Balcony																					
Outside																					

Step 5 Reviewing answers and adding the data

- Review each set of answers and add the data to your empty table.
- Repeat the steps until you have added answers from all your cards to the tally chart

Main Focus ↓	Other data	Listening	Watching	Reading	Playing	Morning	Afternoon	Evening	Night	<1 hour	1-2 hours	3-5 hours	5-8 hours	>8 hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Living room				I				1			I					1					
Study				, ,						l ,											
Bedroom			ſ				Δn	swer	s to v	your (nuest	ions									
Kitchen				0.00 10	200		,		3 10							ΠĪ					
Cinema			-	Lv	1					Re	ading					25-10					
Balcony																					
Outside				Lv	2		Pr	inted	Раре	er			11	lour							
				Lv	vi 3 Tuesday 19:00 Livingroom											Ü					
				Lv	Lvl 4 Chair Fiction Work																

Continue until all your data is in the tally chart!

Main Focus ↓	Other data	Listening	Watching	Reading	Playing	Morning	Afternoon	Evening	Night	<1 hour	1-2 hours	3-5 hours	5-8 hours	>8 hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Living room		II	Ш	1		Ш		Ш	I	1	ШШ				Ш	Ĺ	1	Ī	1		Ш
Study																					
Bedroom		1	Ш		Ш																
Kitchen		I	П			II	1			Ш					l		1		1		
Cinema			П	Λ 0				П		8 8				0 4						1	1
Balcony				1		I				1		ž.		0	-00		1				
Outside		9	=				=				11									=	

|TASK: Tallying your homework data

 Using the sheet and the examples we have looked at create a tally of the data you collected for homework

Missing (or extra) Data, is it important?

During the week that you collected data did anything happen that changed the data you collected?

For example:

- A holiday may increase the amount of media consumed on a day compared to the norm
- A family dinner out may lead to a day when there is less phone usage compared to the norm

These should be noted in our final visualization if they effect the chosen data, the example data has very little for Monday as there was an event attended all day.

!TASK: Unusual Data

Is there any unusual data in your collected data?

• If there is note it on your sheet somewhere to remind you when you start on your visualizations.

Finish you tally chart of data

If you require this document in an alternative format, such as large print or a coloured background, please contact dataschools@ed.ac.uk



