

Dr Nic's Maths and Stats YouTube channel

Dr Nic Petty has been creating videos to explain statistical concepts for nearly ten years. The videos are short, clear, engaging and correct without being pedantic. You or your students may already use some of her videos.

Help for on-line teaching

This document tells you what is available to use in online offerings in these Covid-19 times. You can also see all these 63 videos and more listed with their links on: <https://creativemaths.net/videos/>

All the videos are available on YouTube. Most are available for free and have advertising. The videos with (members) after the title require the viewer to be a channel member, which at about \$5 a month helps support Dr Nic's continued creation of videos.

Please support us on YouTube

You can support our endeavours by becoming YouTube channel members and encouraging your students to do so also. This gives access to the member videos.

<https://www.youtube.com/channel/UCG32MfGLit1pcqCRXyy9cAg/join> is a direct link to join, or you can go to Dr Nic's Maths and Stats YouTube channel and click the JOIN button there. If you become a "Channel Champion" you can have a video made especially for you (within reason).

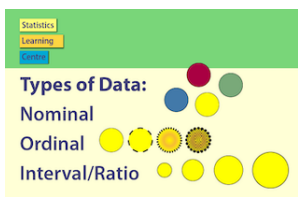


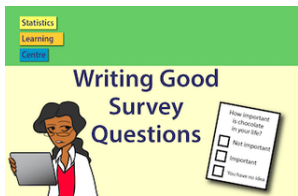

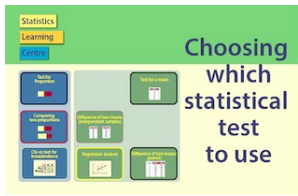
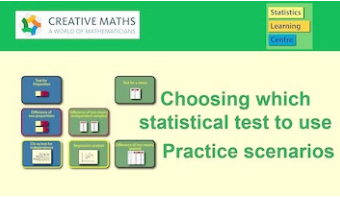
Organisation subscription

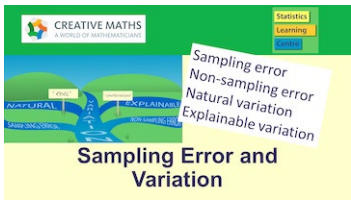

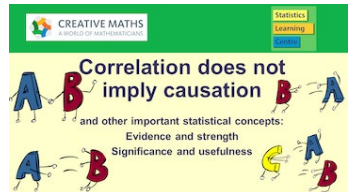
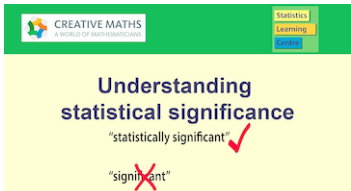
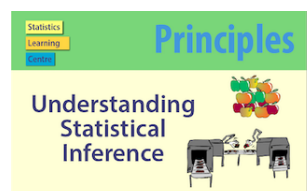


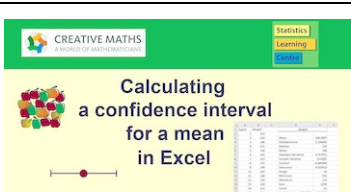
Various organisations have negotiated subscriptions to ad-free videos hosted on Vimeo. Your learning management system you can link to any of these videos without having to go to YouTube, which can be distracting to students. The fee is very reasonable and depends on the number of students and the number of videos you would like to link to.

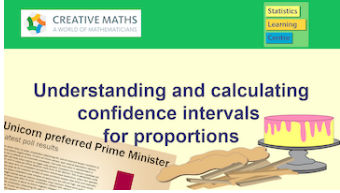


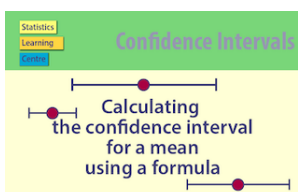
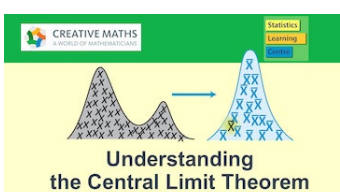
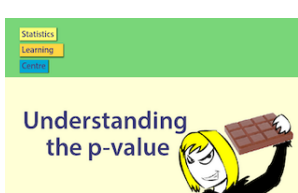
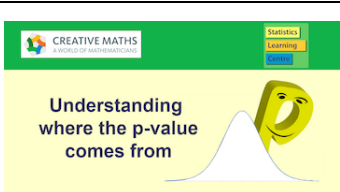
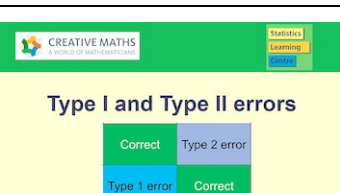
Further information

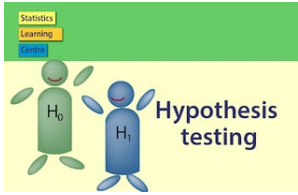
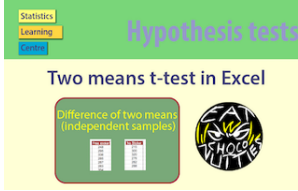
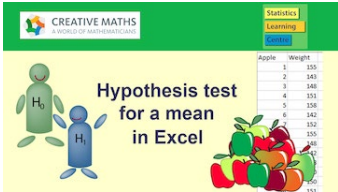
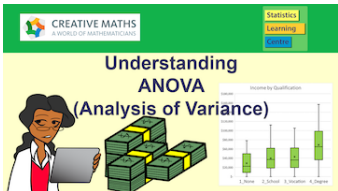
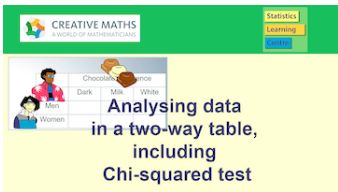
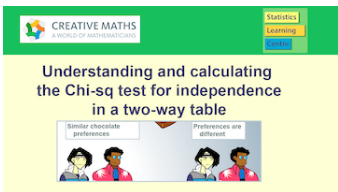
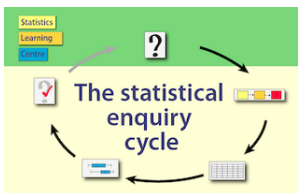
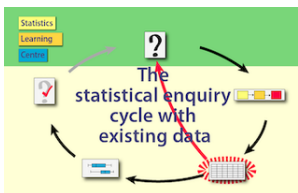
To find out more about an organisation subscription or anything else, email info@CreativeMaths.net

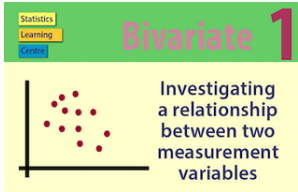

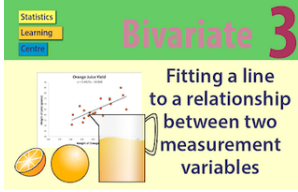
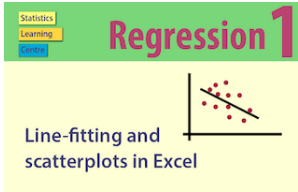



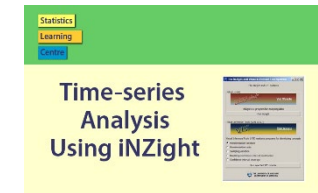
If you are not sure about the difference between subscribing and becoming a channel member, see this blogpost: <https://creativemaths.net/blog/youtube/>




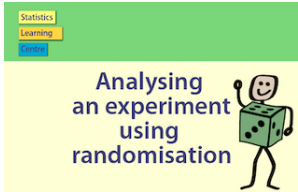
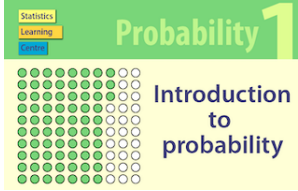
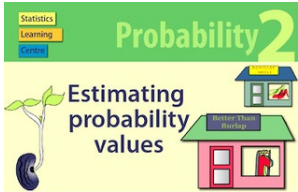
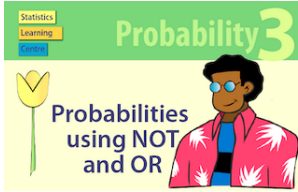

Number	Title	Picture	Length	YouTube Code
S1	Types of data	 A video thumbnail titled 'Types of Data:'. It lists three types: Nominal (represented by colored circles), Ordinal (represented by circles with different patterns), and Interval/Ratio (represented by yellow circles of different sizes).	6:20	hZxnfnt5v8
S2	Classifying types of data – interactive quiz	 A video thumbnail titled 'Classifying Types of data' with the subtitle 'Shopping Mall survey'. It features a cartoon illustration of two people talking.	4:23	PLTZrQt01S4
S3	Designing a questionnaire	 A video thumbnail titled 'Designing a Questionnaire'. It shows a cartoon illustration of two people and a computer screen displaying a questionnaire form.	5:23	FkX-t0Pgzzs
S4	Writing good survey questions	 A video thumbnail titled 'Writing Good Survey Questions'. It features a cartoon illustration of a person holding a laptop and a checklist with items like 'How important is chocolate to your diet?', 'Not important', 'Important', and 'You have to like it'.	3:27	n34OnLnKzlg
S5	Sampling	 A video thumbnail titled 'Sampling'. It lists five methods: Simple, Convenience, Systematic, Cluster, and Stratified, each accompanied by a small icon representing the sampling method.	4:54	be9e-Q-jC-0
S6	Which statistical test	 A video thumbnail titled 'Choosing which statistical test to use'. It shows a flowchart with boxes for different statistical tests like t-test, ANOVA, etc., and a central box for 'Choosing which statistical test to use'.	9:33	rulIUANOU3w
S7	Choosing which test – practice scenarios	 A video thumbnail titled 'Choosing which statistical test to use' with the subtitle 'Practice scenarios'. It features a flowchart similar to the one in S6, but with a focus on practice scenarios.	9:31	QrYgXZf-Ay8


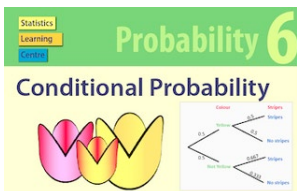
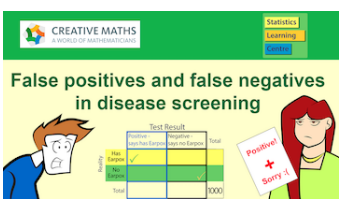
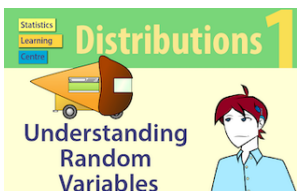

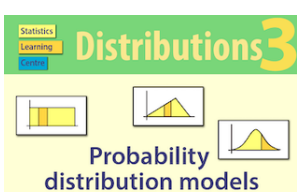
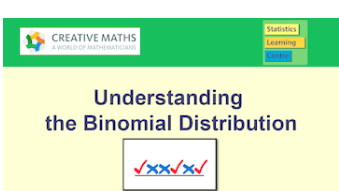
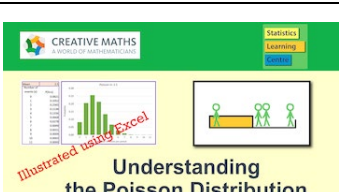
S8	Sampling error		6:29	y3A0IUkpAko
S9	Non-sampling error (members)		5:30	nafuMNbooY0
S10	Correlation and causation		5:33	FG7xnWmZIPE
S11	Statistical significance		3:30	pwBW1aWic_Y
S12	Understanding statistical inference		6:46	tFRXsngz4UQ
S13	Confidence Intervals		4:02	tFWsuO9f74o
S14	Confidence Intervals Quiz		5:41	gvVD-xlY2Hc
S15	Confidence interval for a mean using Excel		3:11	aKAXduMRifY

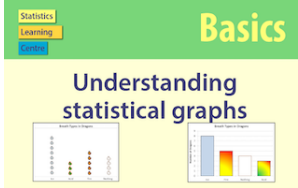
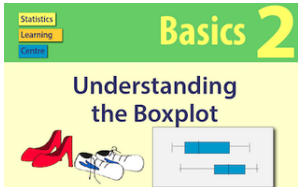
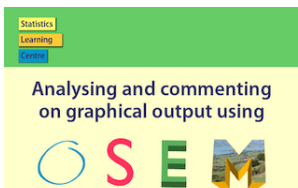
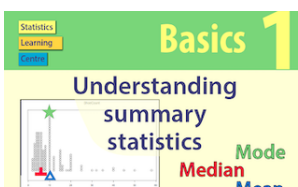
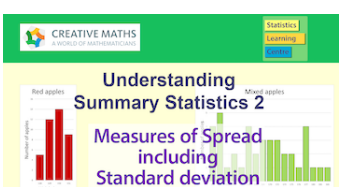
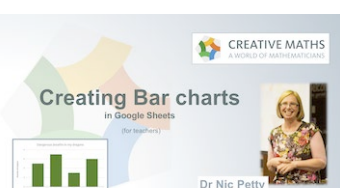
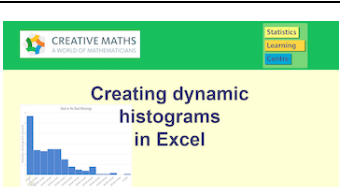

S16	Confidence intervals for proportions		5:15	OkR3PkT15uM
S17	Confidence intervals using bootstrapping (members)		3:02	B1h0K763R94
S18	Calculating a bootstrap confidence interval (members)		2:58	8ZHHpyBwdeg
S19	Confidence interval using a formula		5:29	s4SRdaTycaw
S20	Central Limit Theorem		6:38	_YOr_yYPyTM
	Understanding the p-value		4:42	eyknGvncKLw
	Where the p-value comes from		6:29	0-fEKHSeRRO
	Type 1 and Type 2 errors		3:50	edzQQFNzFjM
S23				

S24	Hypothesis testing		7:37	OzZYBALbZgg
S25	Two means t-test		3:53	t2ryZyytW5w
S26	Hypothesis test for a mean in Excel		7:04	Y3mGoW5w28c
S27	ANOVA		6:04	WcmzS3nEUqo
S28	Chi-squared test		6:25	jhz0ubW0EWk
S29	Calculating the Chi-squared statistic		5:42	qfxzG6FgVIM
S30	The statistical enquiry cycle (members)		3:29	IJWdFvYXvnk
S31	Enquiry cycle with existing data (members)		3:27	WnEfjhMAKQ4

S32	Bivariate investigation (members)		4:41	971louRv2Gw
S33	Example of a bivariate model (members)		3:37	QRy43edenk4
S34	Fitting a line (members)		3:56	sd7ChubIbKM
S35	Line-fitting and scatter-plots		5:17	Ohp1PpzMhE
S36	Regression in Excel		6:27	Ma_yCWKYKEc
S37	Time series analysis		3:00	GUq_tO2BjaU
S38	Time Series in Excel		7:31	OyrheHnQLPg
S39	Time series analysis using iNZight (members)		4:29	7T39ykoisNk

S40	Writing a time-series report (members)	 The slide is titled 'Writing a Time-series Report' with a subtitle '(that people will want to read)'. It features a green header with 'Statistics Learning Centre' and a graphic of a balance scale.	4:57	dBsnTSAMd60
S41	Time series report example (members)	 The slide is titled 'Example of a Time-series Report'. It features a green header with 'Statistics Learning Centre' and a line graph showing data over time.	5:01	TrqhN-KbRIA
S42	Experimental design (members)	 The slide is titled 'Experimental Design Elements'. It features a green header with 'Statistics Learning Centre' and a cartoon character holding a lightbulb.	3:51	8Ci1sAe3kWl
S43	Analysing an experiment (members)	 The slide is titled 'Analysing an experiment using randomisation'. It features a green header with 'Statistics Learning Centre' and a cartoon character holding a die.	3:08	JdPujBUpkBM
S44	Introduction to probability	 The slide is titled 'Probability 1' with a subtitle 'Introduction to probability'. It features a green header with 'Statistics Learning Centre' and a grid of green and white circles.	2:55	XHmIRCw5CLY
S45	Estimating probability values (members)	 The slide is titled 'Probability 2' with a subtitle 'Estimating probability values'. It features a green header with 'Statistics Learning Centre' and a cartoon character holding a leaf.	5:58	Hs1kbAskVW4
S46	Probabilities using NOT and OR (members)	 The slide is titled 'Probability 3' with a subtitle 'Probabilities using NOT and OR'. It features a green header with 'Statistics Learning Centre' and a cartoon character holding a flower.	5:44	A34K5awNKUo
S47	Mutually exclusive events (members)	 The slide is titled 'Probability 4' with a subtitle 'Mutually Exclusive Events'. It features a green header with 'Statistics Learning Centre' and a cartoon character holding a flower.	4:40	SVo2B5m2D60

S48	Combining independent events (members)		5:09	UAXvGb_zAx0
S49	Conditional probability (members)		4:49	5Pv-yL2yNe4
S50	False positives - false negatives		7:51	LMpKgWslssY
S51	Understanding random variables		5:07	IHCpYeFvTs0
S52	Discrete random variables		7:38	V_f_WY-9xto
S53	Probability distribution models		6:47	3VylC_mIAjE
S54	Binomial Probability Distribution		6:07	3EZbX2ftCUk
S55	Poisson Distribution		7:49	zA7fp2s7FIM

S56	Understanding graphs		6:06	rllw15xkmUU
S57	The boxplot (members)		4:38	bhkqq0w60Gc
S58	Analysing graphs with OSEM		7:13	L-ur3pRYKFk
S59	Summary statistics		5:14	rAN6DBctgJ0
S60	Measures of spread		5:08	w5vQoJhrEDA
S61	Creating bar charts		6:27	eNDf3IlctnU
S62	Dynamic histograms in Excel		7:04	IruNZGvPCJY
S63	Why people hate stats – but you don't need to		13:32	feKpK7eZKHQ