

A Level PSYCHOLOGY

Research Methods – Year 1



Experimental Methods

Research Practical Workbook 1:

Planning and Conducting Your Study

Name:

Class:

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Background to the study

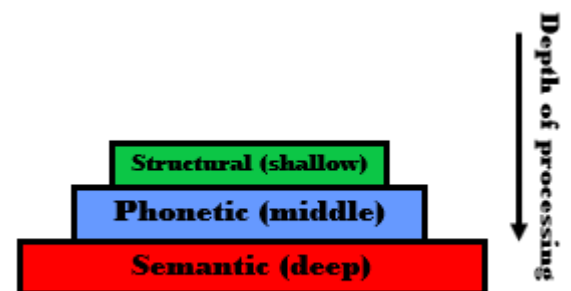
Why are some things so much more memorable than others, staying with us over time (i.e. in our long-term memory)? According to Craik and Lockhart's (1972) levels of processing (LOP) theory, whether information passes from short-term memory to long-term memory depends on the way you think about it.

Information can be thought about or *processed* in three ways, which the researchers refer to as 'levels': structural, phonetic or semantic.

Structural processing is the shallowest level of processing: for example, a word would be processed in terms of its visual features, i.e. what the letters look like.

Phonetic processing is intermediate in terms of depth of processing: for example, a word would be processed in terms of its sound.

Semantic processing is the deepest level: for example, a word would be processed in terms of its meaning and related to similar words with similar meaning or existing knowledge.



Craik and Lockhart suggest that the 'deeper' the level of processing of information, the more likely it will remain in long-term memory. This is because, deep processing involves more complex analysis (e.g. images, thinking, associations, etc.), which makes the information more memorable to us.

Craik and Tulving (1975) found support for the theory when they presented all participants with an orienting task on similar materials. Participants were briefly presented with words that they had to analyse at the different levels proposed in the theory.

If a word was to be processed at a shallow level they had to identify if it was in capitals or not. If a word was to be processed at a phonetic level they had to judge whether it rhymed with another word. If a word was to be processed at a semantic level they had to judge whether it fitted into a sentence or belonged to a particular category.

When participants were later given an unexpected recognition task, recall was highest for semantically processed words and lowest for structurally processed words, as the theory predicts.

Plan Your Study:

Aim:

Independent variable:	Dependent variable:
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Hypothesis:

Is this hypothesis directional or non-directional? Why?

Null hypothesis:

The experimental design to be used:

Strengths of this design:	Weaknesses of this design:
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Controls:	Ethics:
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Standardised Instructions – Group A (words only)

- Thank you for agreeing to take part in this research. In a moment you are going to be shown a list of words. Your task is to memorise them. Please don't write anything down until you are told to.
- Have you any questions?
- [After showing slides]: Please write down all the words you can remember.

Standardised Instructions – Group B (words and pictures)

- Thank you for agreeing to take part in this research. In a moment you are going to be shown a list of words and images. Your task is to memorise them. Please don't write anything down until you are told to.
- Have you any questions?
- [After showing slides]: Please write down all the words you can remember.

Group A - 1

TRAIN	APPLE
DOG	TABLE

Group A - 2

CAT	ORANGE
CAR	CHAIR

Group A - 3

TELEPHONE	BIRD
PLANE	TREE



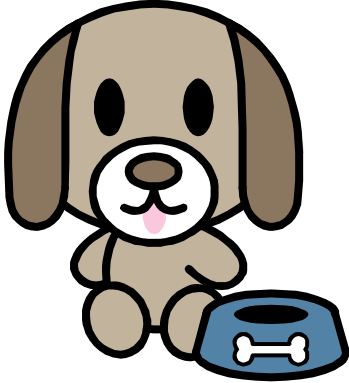

Group A - 4

TOMATO	LORRY
FISH	DOOR

Group A - 5

GRAPES	WINDOW
FLOWER	KETTLE

Group B - 1

<p>TRAIN</p> 	<p>APPLE</p> 
<p>DOG</p> 	<p>TABLE</p> 

Group B - 2

CAT



ORANGE



CAR



CHAIR



Group B - 3

TELEPHONE



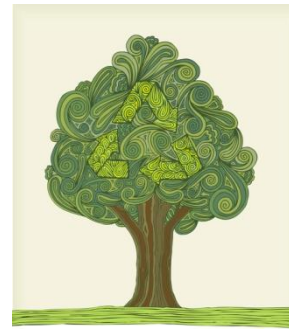
BIRD



PLANE



TREE



Group B - 4

TOMATO



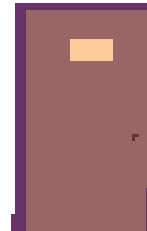
LORRY



FISH



DOOR



Group B - 5

GRAPES



WINDOW



FLOWER



KETTLE



Debrief – All participants

- Thank you for your co-operation.
- This experiment was testing the idea that imagery aids memory. It was expected that participants who were shown images alongside words would remember more items than participants who were shown only words.
- Do you have any questions?

Record Your Results:

Participant	Gender	Condition (A or B)	Number of words correctly recalled
1			
2			

Information and consent form – participant 1

- I am currently studying research methods as part of my psychology course at East Sussex College and I would like you to take part in a short experiment on memory. The experiment should take 5-10 minutes of your time.
- I will not record your name for this study and nor will you be identifiable in any other way in my written report on the experiment. The report will be read by my teacher.
- You can withdraw from the study at any point. If you tell me that you wish to do so, your data will be destroyed and it will not be included in my final report.
- If you do agree to participate, please complete and sign the form below.

Please tick the box by each statement if you agree with it:

I have read the information above and understand what I will be asked to do.

I have been given time to consider whether I wish to participate in the study.

I understand I have the right to withdraw at any point.

I understand I have the right to withdraw my data.

I consent to participate in the study.

Signed

Information and consent form – participant 2

- I am currently studying research methods as part of my psychology course at East Sussex College and I would like you to take part in a short experiment on memory. The experiment should take 5-10 minutes of your time.
- I will not record your name for this study and nor will you be identifiable in any other way in my written report on the experiment. The report will be read by my teacher.
- You can withdraw from the study at any point. If you tell me that you wish to do so, your data will be destroyed and it will not be included in my final report.
- If you do agree to participate, please complete and sign the form below.

Please tick the box by each statement if you agree with it:

I have read the information above and understand what I will be asked to do.

I have been given time to consider whether I wish to participate in the study.

I understand I have the right to withdraw at any point.

I understand I have the right to withdraw my data.

I consent to participate in the study.

Signed