

WHAT IS POSTER PRESENTATION?

- **Poster presentation** is a method of visually presenting research findings, ideas, or projects, commonly used at academic conferences, symposia, and meetings.
- **Objectives:**
- **Presenting the research:** To explain the topic you're working on quickly and effectively to others.
- **Receiving feedback:** During a poster presentation, you can receive constructive criticism from academics or other interested individuals, giving you the opportunity to improve your research.
- **Networking:** It provides a platform to meet other researchers in the field, exchange ideas, and create opportunities for collaboration.
- **Attracting interest:** A well-prepared poster can capture attention in a crowded conference and lead to more interactions.

POSTER CONTENT

- consider your poster as a visual tool
- leave out some of the details
- your poster should be visually appealing
- someone should be able to read your paper on its own
- someone should be able to understand your rationale, your research question, your procedure, results, and conclusion when reading the poster

Content Elements

- The introduction makes a simple, yet logical rationale for the research question.
- The method gives the necessary information about the procedure without getting bogged down into details
- The results describe the type of analyses, the pattern of the data, and the inferential statistics in two clear sentences.
- The conclusion answers the research question and briefly addresses the implications (or big picture) conclusions that could be drawn from the findings.

Title

- can be less formal
- should describe the content of your work
- should indicate what your research area is
- you should list the authors
- you may list authors by alphabetical order, a flip of the coin, or whatever
- but you must list the full names (first and last) of the contributors/presenters.

Introduction

- should lead the reader to the “hole” in the research and end with the research question or purpose of the paper
- provide a general explanation without references about how this problem has been addressed

Method

- should be complete, but will certainly not contain all the details
- your **participant** information will be much shorter, unless it is necessary that you report this
- the **materials** need only be described if they are particularly complex or novel to your study
- the **procedure** will be the primary text in the method section

Results/Conclusions

- should only report the main findings as succinctly as possible
- the primary objective of the results section of the poster is to point to the most important findings and the inferential statistics
- should include any relevant “data crunching” procedures, manipulation check information, and the primary analyses

Poster presentations

- a fun way to discuss research with interested parties
- audience at a conference moves through the poster displays to
 - inquire
 - learn
 - about the information presented on the poster

designing your poster

- include the most important information from your research
- choose a title that captures the interest of an audience and orients the audience to the poster's content
 - use large text for the title
 - do not use all capital letters in the title



designing your poster

- use pictures, tables, and figures to illustrate concepts and add interest to the poster
- use colors on the poster with care
- avoid excessive amounts of information and seek to enhance conversation by giving just enough information and visuals to interest the audience

designing your poster

- design a poster that clearly portrays the subject, purpose, and results
 - use the most important textual descriptions and supporting images
 - use appropriate size font that is large enough and contrasts easily with the poster's background
 - non-serif fonts such as Helvetica for title and headings and a serif font like Palatino for the body text are easier to read
 - never use dark backgrounds

EMOTIONAL COLOR WHEEL

EMOTIONAL VALUES OF SHAPES AND COLORS

There are some symbols in cultures that are the same everywhere. For instance, a puddle of red will be assumed to be blood: this would be the same in New York, China, or the jungles of some far off land. Artists have been using these cultural symbols in their art to hide the meanings of their work or to code them.

COLOR
COLOR
COLOR
COLOR

RED: Associated with blood so it is the most angry color: Rage, hate, danger.

ORANGE: A hot stove, traffic cone, or flower they are hot you need to remain cautious. Aggressive, hot headed, impulsive, rough.

YELLOW: Like the sun, playful, warm, enthusiastic, glib, fun, funny, and child-like.

GREEN: A color of growth. The type of green can indicate freshness: New, youth, students, heat, healthy.

BLUE: Associated with the sky or water, it is vast, cool, questioning, life giving, calm, deep, & generally positive.

PURPLE: A deep dark and royalty, peaceful, calm, & quiet.

GOLD: A color of richness and wealth. Also a color of accomplishment, (like a Gold Award).

BLACK: A color of mystery or the unknown, also a color of sadness and death.

BROWN: Earth, soil, dirt. A color of potential growth, possibility, a new beginning, or "the end."

WHITE: A color of light, spirituality, cold, and purity.

MIXING: Colors will give new meanings and associations, so will using colored patterns. How would you color in your shape to represent your personality?



SHAPE
SHAPE
SHAPE
SHAPE

▲ TRIANGLES are associated with SHARP edges like a knife, a sword, sharp glass, and spear. They are considered aggressive, dangerous, negative, and unbalanced. Triangles can be drawn in many ways to make them look more or less sharp.

● CIRCLES are associated with SOFT objects like a balloon, bubble, or ball. They are considered playful, soft, energetic, positive, and happy.

■ SQUARES are associated with constructive ideas like building, they are regular, stable, strong, dependable, give of time, unshakable. Stretching the square into a rectangle can break up the monotony.

Shapes can be combined to make new emotional values. A house shape is like a triangle and a square, so it will be strong and visible, but have a little danger to it. What shapes would you combine to represent you?

REMEMBER SHAPES AND COLORS CAN BE COMBINED FOR MIXED EMOTIONAL VALUES. A HEART SHAPE IS A COMBINATION OF CIRCLES AND A TRIANGLE.

RESEARCH METHODS: NON-EXPERIMENTAL METHODS

Psychologists use a range of different methods for conducting research. Non-experimental methods are used to describe different events, experiences or behaviours and find links between them. Each method has strengths and weaknesses which make it suitable for certain types of research and unsuitable for others.

SURVEYS

Surveys are used to collect standardized information from participants. They involve administering questions to individuals through questionnaires or interviews. The information should be collected from a sample of people who are representative of the larger population.

Strengths: Surveys are an efficient, inexpensive and easy way to collect information from large samples of people.

Results can be generalized to the larger population.

Weaknesses: Although random sampling is used, experimenter bias can bias results. People who respond to the survey may be different from those who do not respond.

Participants may not be truthful or accurate in their answers because they want to present themselves in a socially acceptable manner.

QUESTIONNAIRES

A questionnaire is made up of a list of questions which are used to collect and record information on a particular topic of interest.

Questionnaires contain closed and/or open questions.

1. **Closed questions:** These offer a choice of responses from a limited set of answers such as strongly disagree, disagree, uncertain, agree or strongly agree.

Advantages: Closed questions are simple and quick for respondents to answer and straightforward for researchers to analyse and compare.

Disadvantages: They provide a very limited amount of information and do not allow for more detailed responses. Therefore, they lack validity.

2. **Open questions:** These give respondents the opportunity to provide detailed answers that reflect them as individuals.

Advantages: Open questions allow respondents to explain their answers and provide rich, detailed information.

Disadvantages: They are time-consuming to complete and analyse. All responses can be different which makes comparisons and statistical analysis difficult.

INTERVIEWS

An interview is a face-to-face discussion in which an interviewer asks a series of questions to an interviewee to gain information.

There are two types of interview: structured and unstructured.

1. **Structured interviews:** These involve a fixed set of questions with a selection of possible answers. All participants should be asked exactly the same questions in the same order.

Advantages: Comparisons can be made easily because all respondents answer the same questions.

Disadvantages: You can only gain a limited amount of information because there is no opportunity to explore the respondents' answers further.

2. **Unstructured interviews:** These are longer interviews with no set questions. Questions are related based on the responses to previous questions. Unstructured interviews involve informal discussions about particular topics.

Advantages: Unstructured interviews provide detailed information and avoid oversimplifying complex issues.

Disadvantages: It is difficult to analyse and compare responses because answers are unstructured and qualitative in nature.

Unstructured interviews are time-consuming and expensive as skilled interviewers are required.

OBSERVATION

An observation is an investigation in which a researcher observes subjects and records and analyses their behaviour. There are different types of observation.

Naturalistic observation: People are observed in a natural setting with no intervention by a researcher.

Advantages: High ecological validity because the researcher observes real-life behaviour.

Disadvantages: If the observer becomes noticeable, it may affect the behaviour of participants.

Controlled observation: Observations are carried out in a controlled environment, such as a laboratory.

Advantages: Each participant is exposed to the same situation so generalizations can be made with confidence. This enables specialist equipment to be used to measure and record behaviour.

Disadvantages: A lack of ecological validity occurs when people are not in their natural environment then behaviour may not reflect real life.

Participant observation: Observers have direct contact with the people they are observing by becoming members of the group.

Advantages: Observers can gain a more in-depth knowledge of the behaviour of participants.

Disadvantages: It is very time-consuming, and researchers may lose objectivity if they become too involved with the group they are studying.

CASE STUDIES

A case study is an in-depth investigation of an individual, group, event or community. The researcher collects data through interviews, observation, psychological tests or examination of documents and records.

Strengths: Case studies provide rich qualitative data and have high levels of ecological validity.

They allow researchers to investigate cases that could not be researched in laboratories.

Weaknesses: The results cannot be generalized to the wider population as they only relate to one individual or group.

The researchers' own subjective feelings may influence the case study, making it not entirely unbiased.

CORRELATIONS

A correlational study involves measuring two variables and trying to determine if there is a positive or negative relationship between them.

Positive correlation: An increase in one variable is associated with an increase in the other.

Negative correlation: An increase in one variable is associated with a decrease in the other.

If there is no correlation, then no relationship exists between the two variables.

Positive Correlation



Strengths: Correlations are useful for making predictions about the effect of one variable on another. Correlations can also show the strength of a relationship between two variables.

Weaknesses: They only show that a relationship exists between two variables. They cannot help determine a cause-and-effect relationship.

There may be other confounding variables that affect the results.



Guess What?

Motivation Boosts the Influence of Subliminal Information on Choice

Maxim Milyavsky, Ran R. Hassin & Yaacov Schul

The Hebrew University of Jerusalem



Background

Much research has been devoted to the depth of processing of subliminal stimuli (Van den Bussche et al., 2009). However, little is known about their influence on behavior.

Recently, it has been shown that subliminal semantic primes can affect consumption choice if they are related to currently active needs. For example, Strahan et al. (2002) showed that thirsty participants, when exposed to thirst-related subliminal primes, were more likely to choose a thirst-quenching beverage compared to a control beverage (see also Karremans et al., 2006).

Our Research

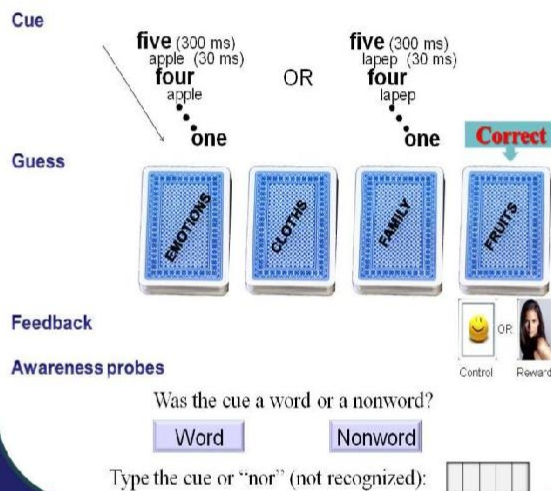
Hypothesis: Increased motivation to succeed boosts the effect of subliminal cues indicating the correct choice in a task, even if the cues are not semantically related to the motivation.

Task: In each trial of the *Category-Based Choice* task (CBC) participants had to choose the winning card (randomly predetermined by the computer). An exemplar from the category of the winning card was presented subliminally just before the choice. Use of the subliminal cues is indicated by above-chance performance in the choice task.

Subliminality was assessed via both objective and subjective tests. All of the reported results came from unseen cues.

Manipulation: Motivation was increased either by priming achievement or via presenting more rewarding feedback for correct choices.

Category-Based Choice Task (trial structure)



Experiment 1

Method. Sixty six males were randomly assigned to 3 groups. Motivation to succeed was either primed via *achievement-related* words hidden in a word-search puzzle (Bargh et al., 2001), or enhanced by presenting *more rewarding* feedback images, that is, photos of attractive females.

Results. Motivated participants performed above chance level (the bold line on the graph) and better than the control ones.

Exp. 1 % Correct Choices



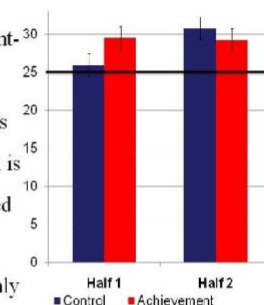
Experiment 2

Method. Participants (N=95) were

randomly assigned to either achievement-priming or control group. Priming was identical to Exp. 1. The number of trials was doubled to test whether motivation is a necessary condition for category-based subliminal effects.

Results. In the first half of the trials only motivated participants performed above chance level, while in the second half both groups did.

Exp. 2 % of Correct Choices



Conclusions

Exp. 1 showed that enhancing motivation to succeed both by priming achievement and strengthening reward made participants benefit from subliminal cues. **Exp. 2** replicated this result, and showed that with more practice controls reached the same level of performance. We conclude that motivation boosts the influence of subliminal cues on choice even when the cues are semantically unrelated to the motivation.

References

- Bargh, J. A., Gollwitzer, P. M., Lee-Chai, A., Barndollar, K., & Trötschel, R. (2001). The automated will: Nonconscious activation and pursuit of behavioral goals. *Journal of Personality and Social Psychology*, 81, 1014–1027.
- Karremans, J., Stroebe, W., & Clauss, J. (2005). Beyond Vicary's fantasies: The impact of subliminal priming and brand choice. *Journal of experimental social psychology*, 42, 792–798.
- Strahan, E., Spencer, S., & Zanna, M. (2002). Subliminal priming and persuasion: striking while the iron is hot. *Journal of experimental social psychology*, 38, 556–558.
- Van den Bussche, E., Van Den Noortgate, W., & Reynvoet, B. (2009). Mechanisms of masked priming: A meta-analysis. *Psychological Bulletin*, 135, 452–477.

For further information contact: maxim.milyavsky@mail.huji.ac.il

A-3

6'

ABSTRACT

**TITLE OF PAPER
NAME(S) OF AUTHOR(S)**

4'

INTRODUCTION

RESULTS

TABLE 1

FIGURE 1

METHOD

TABLE 2

CONCLUSIONS

Title

Author(s)/Institution(s)

Abstract

Methodology

Tables

Results

**Introduction
and
Purpose**

Graphs

Pictures

**Summary
and
Conclusion**

Information seeking behaviour in people with lung cancer and the World Wide Web: Does Dr Google promote early help seeking?

John Marshall, Pauline (aka Paul) de Souza, and Dr Christine

¹School of Nursing, Midwifery and Health Studies, University of Manchester; ²School of Computer Science, University of Manchester

1. Background

Lung cancer is the leading cause of cancer death in the UK. It is a disease that is often diagnosed at a late stage, which can lead to poor outcomes. The World Wide Web is a valuable resource for people with lung cancer and their families to find information about the disease, its treatment, and how to live with it.

2. Aims

The aim of this study was to explore the information seeking behaviour of people with lung cancer and their families. We wanted to find out what they were looking for, how they were finding it, and what they were doing with it. We also wanted to see if there were any differences in their behaviour depending on their stage of disease, their age, and their education level.

3. Methods

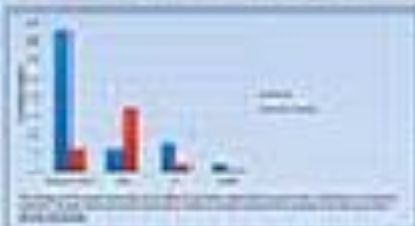
We conducted a qualitative study using semi-structured interviews. We interviewed 15 people with lung cancer and 15 of their family members. The interviews lasted between 30 and 60 minutes. We asked them about their information needs, how they were finding information, and what they were doing with it. We also asked them about their experiences of using the World Wide Web.

4. Results

Our findings show that people with lung cancer and their families have a wide range of information needs. They are looking for information about the disease, its treatment, and how to live with it. They are also looking for information about support groups, financial help, and legal issues.

They are finding information in a variety of ways. Some are using the World Wide Web, while others are talking to their doctor, a nurse, or a friend. Some are doing all of these things.

Our findings suggest that the World Wide Web is a valuable resource for people with lung cancer and their families. It can help them to find information about the disease, its treatment, and how to live with it. It can also help them to find support groups, financial help, and legal information.



5. Discussion

Our findings suggest that the World Wide Web is a valuable resource for people with lung cancer and their families. It can help them to find information about the disease, its treatment, and how to live with it. It can also help them to find support groups, financial help, and legal information.



Our findings suggest that the World Wide Web is a valuable resource for people with lung cancer and their families. It can help them to find information about the disease, its treatment, and how to live with it. It can also help them to find support groups, financial help, and legal information.



6. Conclusion & Future Work

Our findings suggest that the World Wide Web is a valuable resource for people with lung cancer and their families. It can help them to find information about the disease, its treatment, and how to live with it. It can also help them to find support groups, financial help, and legal information.

PROVIDING PSYCHOLOGICAL SUPPORT FOLLOWING FACIAL INJURY

Developing psychological services following world football injury in the context of first and secondary trauma (Dr John Marshall, Dr Paul de Souza, Dr Christine Marshall)



Abstract
This paper describes the development of psychological services following world football injury in the context of first and secondary trauma. The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

1. Introduction

World football is a popular sport in the UK, and it is a source of pride for many people. However, it is also a sport that can be dangerous, and it can lead to serious injuries. One of the most common types of injury is a facial injury, which can be both physically and psychologically damaging.

Facial injuries can lead to a range of psychological problems, including post-traumatic stress disorder (PTSD), depression, and anxiety. These problems can be caused by the physical damage to the face, the pain and discomfort of the injury, and the social stigma that can be associated with facial injuries. They can also be caused by the fear of further injury, the loss of a loved one, or the loss of a job.

It is important to provide psychological support to people who have suffered a facial injury, as this can help them to cope with the injury and its consequences. This support can be provided in a variety of ways, including through individual counselling, group therapy, and self-help materials.

This paper describes the development of psychological services following world football injury in the context of first and secondary trauma. The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

2. Methods

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

3. Results

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

The services were developed in response to the needs of players and their families, and were designed to provide psychological support and help with coping with the injury and its consequences.

TITLE

Names of all coauthors
Pomona College

Abstract

About 100 words or fewer. You need to give a comprehensive overall picture. Here and everywhere, use a font large enough to read from 3-4 feet.

Method

This should be brief. Just present the basic points. Consider using a bulleted list. Make sure the reader has a good general idea of what you did (Participants, Materials, Procedure).

Figures and tables

Make sure figures can be easily interpreted and are visible from a distance. Use a graphics program.

Do not try to pack too much information into a figure or table. It should be "readable"—it should make sense visually and present information in a manner that can be picked up quickly.

Results

Brief verbal description of what you found.

Discussion

What do your results mean? What theoretical ideas do they support or reject?

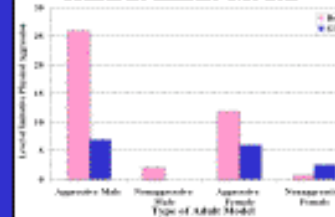
Introduction

Acquaint the reader with the problem and explain how your approach may answer some question. Refer to sources, using APA format.

Questionnaire or Stimulus Materials



Children Imitate Models



Conclusions

Usually concise bulleted statements of 2 or 3 main points—the take-home message.

References

Just the main ones.

INTRODUCTION

Reversed-Flow Gas Chromatography (RF-GC) is a relatively new technique to determine the physicochemical properties of solute. This technique which is a part of flow-perturbation gas chromatography is used to investigate the evaporation of low molecular weight alcohol under the influence of surfactant. Waste methanol is considered as an ignitable hazardous waste by US Environmental Protection Agency when its concentrations equal to or greater than 24% by weight. The aim of this study is to determine whether non-ionic surfactant possesses a suppressing effect on the evaporation of pure methanol. The evaporation rates as well as the diffusion rates of methanol are determined with a Triton X monolayer(s) being imposed on the liquid-gas interface; while nitrogen gas as carrier gas in the sampling procedure, at 313 K. The precision (<99.9%) and accuracy of this investigation demonstrates the potential of current methodologies for environmental impact studies, this is further verified when the results are compared with the available literature. The evaporation rates of methanol do vary in the presence of various amounts of Triton X-100 reflects that application of surfactants do retard the evaporation rates of liquid pollutants, without interference with the former's diffusion coefficients. High amounts of Triton X-100 are required for retardation of evaporation rates, suggesting the formation of a densely packed surfactant monolayer or the formation of an insoluble monolayer. The findings contribute to the knowledge of the evaporation of liquid influenced by surfactant's monolayer(s) at certain temperature and a propose mechanism of methanolic vaporization in prior of acute toxicity to the human being.

METHODOLOGY

Determination of Critical Micelle Concentration (CMC) of methanol at 298.15 K¹

CMC Measurement



Materials



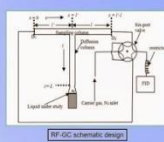
Imposing of Triton-X100 surfactant on the surface of methanol

1 to 4 monolayer(s) being imposed on the surface of the methanol by using micro pipette²



Determination of evaporation rates and diffusion rates of Triton-X100 monolayer(s) + methanol

Reversed-Flow Gas Chromatography (RF-GC)



RESULTS AND DISCUSSION

Fig. 1. Reversed-Flow Gas Chromatography (RF-GC) setup used for the evaporation of liquid vapor into carrier gas at 313.15 K and 101.325 kPa (1 atm) using nitrogen gas at 313.15 K and 101.325 kPa (1 atm).

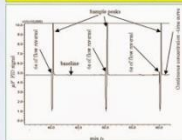


Fig. 2. Diffusion band (band of sample vapor) of A, signal time, t_b , from the beginning of the experiment; for the evaporation of A, at 313.15 K and 101.325 kPa.

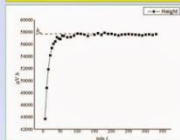
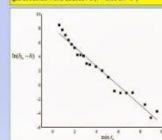


Fig. 3. Example of plot for the diffusion of liquid vapor into carrier gas at 313.15 K and 101.325 kPa.



- 1. Table 1 summarizes the results for the evaporation of methanol under the influence of surfactant Triton X-100 ranging from 1 to 4 monolayers.
- 2. The diffusion coefficients which are determined from this experiment are compared with the predicted values from the Fick-Gibbs equation (5) and experimentally obtained values from previous experiment work (6), which use using a different method.
- 3. The present method gives a deviation from the previous method (5), since the former method can be used to simultaneously determine the evaporation rates and diffusion rates of the liquid under study.
- 4. The present method is accurate since the results show that the diffusion is the current experiment deviates from the predicted theoretical value by less than 1.2% based on experimental values compared from the results by other (5, 6) at 313 K.
- 5. The analysis of the diffusion coefficients of the current experiment from the predicted and experimental literature values, D_{exp} and D_{pred} for the values and are based on the equation 1.
- 6. Based on the diffusion coefficient values, D_{exp} and D_{pred} can be assumed that they are independent of the addition of surfactant as expected (5).
- 7. The mean deviation of the method + Triton X-100 liquid monolayer is determined to be 0.0001, which is less than 0.1% for the use of the liquid method.
- 8. The reproducibility of this method is determined to be 0.0001, which is less than 0.1% for the use of the liquid method.
- 9. The accuracy of the determination of the evaporation rates, R_{exp} and R_{pred} is determined to be 0.0001, which is less than 0.1% for the use of the liquid method.
- 10. The accuracy of the determination of the diffusion rates, D_{exp} and D_{pred} is determined to be 0.0001, which is less than 0.1% for the use of the liquid method.

Fig. 4. Variation of evaporation rate of liquid vapor into carrier gas at 313.15 K and 101.325 kPa (1 atm) using nitrogen gas at 313.15 K and 101.325 kPa (1 atm).

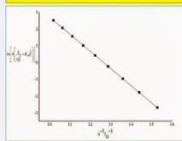


Table 1. Rate coefficients for the evaporation of methanol, R_{exp} , and diffusion coefficients of its vapors into nitrogen, D_{exp} , under the effect of various amount of surfactant Triton X-100, at 313.15 K and 101.325 kPa.

Monolayer Thickness of Triton X-100	R_{exp} , $\text{cm}^3 \text{ s}^{-1}$	Retention, t_b , s	D_{exp} , $\text{cm}^2 \text{ s}^{-1}$	D_{pred} , $\text{cm}^2 \text{ s}^{-1}$	Deviation, %
0	36.09 ± 0.23	-	181.100	181.33	0.13
1	31.75 ± 0.05	472	189.252	181.33	5.47
2	30.71 ± 0.14	76.6	188.072	181.33	5.47
3	17.31 ± 0.87	82.1	183.142	181.33	8.87
4	12.38 ± 0.31	87.3	180.462	181.33	5.57
Mean values	180.332	-	181.33	181.33	0.00
Standard deviation	99.99	-	99.99	99.99	0.00

1. The mean deviation of the method + Triton X-100 liquid monolayer is determined to be 0.0001, which is less than 0.1% for the use of the liquid method.

2. The reproducibility of this method is determined to be 0.0001, which is less than 0.1% for the use of the liquid method.

3. The accuracy of the determination of the evaporation rates, R_{exp} and R_{pred} is determined to be 0.0001, which is less than 0.1% for the use of the liquid method.

4. The accuracy of the determination of the diffusion rates, D_{exp} and D_{pred} is determined to be 0.0001, which is less than 0.1% for the use of the liquid method.

$$\text{Deviation (\%)} = \left\{ \frac{D_{pred} - D_{experimental}}{D_{pred}} \right\} \times 100$$

Equation 1

CONCLUSION

- The k_b values in the presence of various amounts of Triton X-100 corresponding to the formation of an adsorbed monolayer at the surface of the methanol, demonstrating that Triton X-100 does make the evaporation rates decrease.
- The evaporation rate expresses by a high percentage, i.e. 67.2%; with just one monolayer of Triton-X100 being applied on the surface of the methanol.
- The usage of RF-GC has value because of its precision and experimental simplicity.

ACKNOWLEDGEMENT

The authors would like to thank Malaysian Agricultural Research and Development Institute (MARDI) and Bright Sparks Unit, Dikim Binasivazah University of Malaysia for scholarship and financial assistance. The work was also supported by a Postgraduate Research Grant (PPP) No. PG067-2013A from Institute of Research Management and Monitoring (IPMP), University of Malaysia. The author wants to dedicate special thanks to Dr. Tay Kheng Soo for his critique and review of the findings from the experiments; as well as to the staff of the Department of Chemistry, University of Malaysia, for their technical support. The author is also indebted to Miss Kumuthi A.P Chandrasekaram for her assistance on titrimetric analysis.

REFERENCES

- G. Dimitrova, A.K. Rashid, G. Karakulak, "Study of the evaporation of Pollutant Liquids under the Influence of Surfactant," *AIChE*, 2006, vol. 52, pp.2388-2393.
- J.E. Davies and E.K. Reid, *Interfacial Phenomena*, 1984, New York: Academic Press.
- G. Karakulak, N.A. Katanas, "Rate coefficients for evaporation of pure liquids and diffusion coefficients of vapors," *J Phys Chem*, 1984, vol. 88, pp.3674-3676.
- E.N. Faller, P.D. Bletcher, J.C. Giddings, "A new method for prediction of binary gas-phase diffusion coefficients," *Ind Eng Chem*, 1966, vol. 58, pp.38-27.
- M.J. Amarat, H.M. Ghale, "Electrochemical discharge as detector in the rapid determination of binary diffusion coefficient of gases," *Int J Electrochem Sci*, 2005, vol. 26, pp.159-162.
- K. Khalid, A.K. Rashid, and M.Z. Sharifuddin, "Determination of Diffusion Coefficients and Activation Energy of Selected Organic Liquids Using Reversed-Flow Gas Chromatography Technique," *Sains Malaysia*, 2012, vol. 41 no. 3, pp.1109-1116.

Template Provided By Geniographics – 800.790.4001 Replace This Text With Your Title

John Smith, MD¹, Jane Doe, PhD², Frederick Smith, MD, PhD^{1,2}
¹University of Affiliation, ²Medical Center of Affiliation

INTRODUCTION

Geniographics[®] has provided this template to assist in preparation of a medical or scientific research poster. The dimensions are set to 48" high by 80" wide but prints can be scaled up or down in size for any dimensions with a 1:1 aspect ratio. For example, if you order a 48" x 80" poster using this template, we will print the file at 80.3% of its original size. The most critical factor is that your template and poster dimensions must be proportional.

$$\frac{\text{template height}}{\text{template width}} = \frac{\text{desired print height}}{\text{desired print width}}$$

Order your poster from Geniographics and we will perform a free design review and advise you if we see anything that may be a concern for printing. We'll even help you things up.

We have more history with PowerPoint[®] than any other printing company. In fact, we helped Microsoft[®] design the software and we created all of the original color themes, templates, and clip art galleries. We know how to make your printed poster look just like it does on screen. Other printing companies and copy centers will likely convert your file to another format prior to printing. This can result in text shifting, symbols changing, and several points. Let us know the secrets to avoid these issues. To choose Geniographics for the most accurate reproduction available.

METHODS AND MATERIALS

Click here to insert your Methods and Materials text. Type it in or copy and paste from your Word document or other source.

This text box will automatically resize to your text. To turn off that feature, right click inside this box and go to Format Shape, Text Box, AutoFit, and select the "Do Not AutoFit" radio button.

To change the font style of this text box (Click on the border once to highlight the entire text box, then select a different font or font size that suits you. This text is Calibri 14pt and is easily read up to 5 feet away on a 48x80 poster.

Zoom out to 100% to preview what this will look like on your printed poster.



Figure 1. Line graph showing data trends over time.



Figure 2. Bar chart showing data trends over time.

RESULTS

Click here to insert your Results text. Type it in or copy and paste from your Word document or other source.

This text box will automatically resize to your text. To turn off that feature, right click inside this box and go to Format Shape, Text Box, AutoFit, and select the "Do Not AutoFit" radio button.

To change the font style of this text box (Click on the border once to highlight the entire text box, then select a different font or font size that suits you. This text is Calibri 14pt and is easily read up to 5 feet away on a 48x80 poster.

Zoom out to 100% to preview what this will look like on your printed poster.

Speaking of Results, you will look better if you remember to use a graph (click on your poster). After you've added your content click on Review, Spelling, or Proof.

DISCUSSION

Click here to insert your Discussion text. Type it in or copy and paste from your Word document or other source.

This text box will automatically resize to your text. To turn off that feature, right click inside this box and go to Format Shape, Text Box, AutoFit, and select the "Do Not AutoFit" radio button.

To change the font style of this text box (Click on the border once to highlight the entire text box, then select a different font or font size that suits you. This text is Calibri 14pt and is easily read up to 5 feet away on a 48x80 poster.

Zoom out to 100% to preview what this will look like on your printed poster.

To change the background color of any text box, click once on the box so it is outlined with a dashed border. Then select Shape Fill from the Drawing Tools, Format tab on the ribbon bar above. It's the one with the paint can icon.

Table 1. Summary of Results

	Measuring	Measuring	Measuring
Item	100	750	4000
Item	110	850	200
Item	120	110	110
Item	130	875	975
Item	140	925	100
Item	150	110	100

CONCLUSIONS

Click here to insert your Conclusions text. Type it in or copy and paste from your Word document or other source.

This text box will automatically resize to your text. To turn off that feature, right click inside this box and go to Format Shape, Text Box, AutoFit, and select the "Do Not AutoFit" radio button.

To change the font style of this text box (Click on the border once to highlight the entire text box, then select a different font or font size that suits you. This text is Calibri 14pt and is easily read up to 5 feet away on a 48x80 poster.

Zoom out to 100% to preview what this will look like on your printed poster.

REFERENCES

1. Geniographics[®] User Reference. Type it in or copy and paste from your Word document or other source.
2. Use on the border once to highlight the entire text box, then select a different font or font size that suits you. This text is Calibri 14pt and is easily read up to 5 feet away on a 48x80 poster.

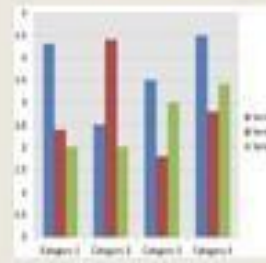


Figure 3. Bar chart showing data trends over time.

designing your poster

- make each section easy to identify and create a logical reading flow on the poster
- design the poster so it can be quickly read in a few minutes
 - it is recommend that you use less than 800 words!!

How to Design a Poster in PowerPoint

1. Open a new PowerPoint document
2. Go to DESIGN- PAGE SETUP
3. You can set the dimensions you'd like for your poster
4. To add colors and background, go to DESIGN, then BACKGROUND STYLES, and then FORMAT BACKGROUND
5. When selecting a color for your background, remember that light is best because a dark font shows up clearly on it. Avoid using a very bright or dark background.

How to Design a Poster in PowerPoint

6. You can choose a solid color, or a gradient. For either selection, you can slide the TRANSPARENCY bar at the bottom to make the color lighter and more transparent.
7. To use a picture as a background, go to FORMAT BACKGROUND, click “Picture or Texture fill.” Click “file” and then navigate to your picture. You can also use Clip art. When using a picture as a background, adjust your transparency so that your text will show up clearly. Only use a picture if it is relevant to your topic!

How to Design a Poster in PowerPoint

8. You will notice that you start with two boxes on your slide. The long rectangular box can be moved to the top to accommodate your title.

9. To add more boxes, go to INSERT-TEXT BOX. You can drag your box around until you have it where you want it and then re-size it. You might want to start with 5 boxes: one for your title, one for your intro, one for methods, one for results, and one for your discussion.

How to Design a Poster in PowerPoint

10. You can add a chart or graph to your presentation by clicking in a box and going to INSERT-CHART. You will find that there are a variety of graphs to add. Select whichever works best for your data. From here you can also insert relevant pictures or clip art. Be careful with Clip Art, though: it's generic and you don't want your poster to look just like everyone else's.

How to Design a Poster in PowerPoint

11. When you need to cite information on your poster, it is easiest to write your citations in a regular word document and then copy the text into a text box. The font for this can be significantly smaller. If you cite a photo, it's easiest to drag the text box to just under the photo.
12. Be sure to save your poster and include a text box for the References in your paper.

Poster text

- The main idea and title of your poster should be identifiable from approximately 2-3 metres.
- Font sizes must be legible from approximately 2-3 metres i.e. at least 96-100 point for main heading, 30-36 point for subheadings and 18-24 point for standard text.
- Recommended typefaces include Arial, Verdana, Tahoma and Times New Roman.

Poster text

- For emphasis underline, italicise or colour highlight text, but do not CAPITALISE as this is often considered the equivalent of shouting.
- Blocks of text should not exceed three paragraphs and should be left-aligned; avoid centred and right-aligned text.
- Use dot points, lists or tables to increase clarity and quantity of information.
- Avoid abbreviations, acronyms and jargon, unless it is pertinent detail specific to your discipline.

Poster colours

- Use a light coloured background with dark coloured text for contrast. Avoid dark backgrounds with light letters.
- When possible, stick to a theme of 2-3 colours that are thematically linked e.g. water = blue.
- If you use multiple colours, use them in a consistent pattern, otherwise viewers will spend their time wondering what the pattern is rather than reading the specifics of your poster.

Poster colours

- Overly bright colours will attract attention, but may become visually overwhelming or distracting on the eyes.
- Consider people who have problems differentiating colours, especially when designing graphics. One of the most common problems is an inability to tell green from red.

Poster graphics

- Use only high quality graphics (i.e. graphs, illustrations and photos) as the centrepiece of your poster, as they need to communicate themes and relationships quickly.
- Present numerical data in the form of graphs rather than tables, as graphs make trends in the data much more evident. If data must be presented as a table, keep it simple.

Poster graphics

- Avoid 3D graphs unless you are displaying 3D data, as 3D images can be difficult to interpret.
- Text on graphs must follow the same guidelines as all other text on your poster, in order to be visible.

Overall poster presentation

- Leave a 3-5cm border around the entire poster to frame your work.
- Eye movement should be neutral i.e. vertically-down columns, horizontally-along rows, top to bottom. Use font sizes, arrows, letters or numbers to clarify a sequence.
- Colour selection should be simple and pleasing to the eye to help unify the poster.
- Intense colours can be used for borders, contrast and emphasis.

Overall poster presentation

- Keep the layout basic and the text brief without overloading the poster. More material can mean less communication. Text should be balanced with graphics, about 50 : 50.
- Visuals should be uncomplicated and bold. Leave out unnecessary details and ensure that visuals can 'stand alone' i.e. that graph axes are properly labelled, that maps have north arrows and distance scales, and that symbols are self-explanatory or explicitly explained.

Overall poster presentation

- Include blank space to create a visually attractive poster that is not too 'busy'. Viewers will be able to recognise the most important information if it is not buried in the poster.
- Make sure that the text and the visuals are integrated i.e. figures are numbered and labelled consecutively according to the order in which they are found in the text and are in close proximity to the corresponding text.

Other recommendations

- Create a handout for your readers that includes a miniature version of your poster and more detailed information about your work. Consider doing this on A4 paper, folded to A5. This will allow for three pages of information and one page for your poster image.
- Provide your contact information, such as an email address and/or a URL, where the viewer can download a PDF version of your poster and additional information on your research. Place handouts and business cards nearby e.g. on a table or in an envelope hung with the poster.