

Academische posters situering

Frank Van Puyvelde – ICTS



1

Agenda

- Wat is een academische poster?
- Inhoudelijke elementen
- Productie: tips
- Productie: maak de poster in PowerPoint
- SOS Poster

Bronnen

- Think It, Draft It, Post It: Creating Legal Poster Presentations
<http://www.legalwritingjournal.org/2015/05/19/think-it-draft-it-post-it-creating-legal-poster-presentations/>
- Zen Faulkes blog
betterposters.blogspot.com
- Colin Purrington
<https://colinpurrington.com/tips/poster-design/>
- Oxford University Guide on Conference Posters
<https://skills.it.ox.ac.uk/posters-improving-your-research-posters-course-pack>
- Zie TOLEDO



3

Academische/ Wetenschappelijke poster?

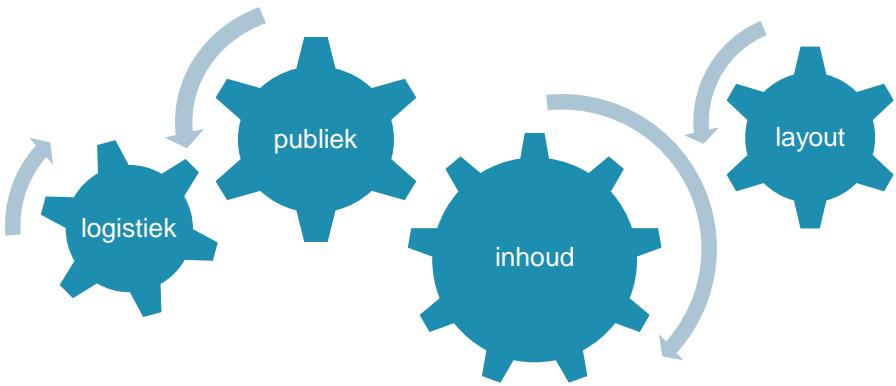
*"A good poster can't make up for bad research,
but a bad poster can make good research hard to recognize!"*

http://www.waspacegrant.org/for_students/student_internships/wsgc_internships/posterdesign.html



4

Academische poster



ICTS



5

Academische poster: definitie

- A scientific poster is a method of **professional communication** that visually tells the **comprehensive**, but **condensed**, **story** of a research project.
While a poster can be **effective alone**, a presenter at a planned gathering enhances the poster by **engaging** interested visitors in **dialogues** that:
 - explain the research,
 - expand the provided information, and
 - ensure the visitor leaves with the desired takeaway message about the project.
(http://cse.ksu.edu/files/cse/CSE%20Symposium%20PosterPresentation%202021_1.pdf)
- The purpose of a **poster presentation** is to create rapid, concise & visual **communication of research**. (*Hofmann, A. H. Scientific writing and communication: papers, proposals, and presentations; Oxford University Press: New York, 2010; pp 499-515*)

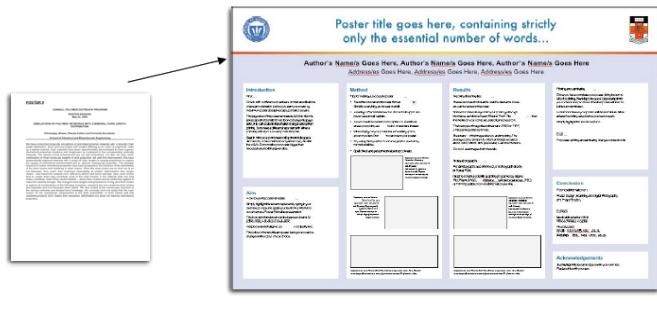
- Professioneel
- Visueel
- Begrijpbaar
 - Verhaal
- Snelle communicatie
- Starten van een dialoog
 - Netwerken
 - Reclame voor jouw werk



6

Academische poster: definitie

- Poster = geïllustreerde abstract, rapport
- LESS IS BEST – LESS IS MORE



<http://www.cns.cornell.edu/documents/ScientificPosters.pdf>

ICTS



7

Academische poster: logistiek

- Check de richtlijnen bij de organisatie
READ THE INSTRUCTIONS
 - E-poster
 - Bestand in cloud
 - Bestand op USB
 - Afmetingen
 - 1 grote poster
 - Sjabloon(template)
 - Specificaties: afmetingen figuren, portret/landschap, font, nummering poster,
 - Welke elementen zijn er nodig?
 - Check evt. *Judging criteria*
- Probeer zoveel mogelijk info te verzamelen over de postersessie



ICTS



8

4

Opdracht: evaluatiecriteria

- Poster
 - De mate waarin de poster uitgewerkt werd in overeenstemming met de aanbevelingen en richtlijnen zoals gegeven in de infosessie (zie kalender werkcollege) en volgens de documentatie over posters op Toledo;
 - De mate waarin de poster het groepsrapport samenvat rekening houdend met de verschillende verplichte onderdelen van dit groepsrapport;
 - De mate waarin de poster creatief en in detail uitgewerkt werd;
 - De vormgeving van de poster.
 - Het verplicht gebruik van het standaardformat dat op Toledo beschikbaar is;
 - De mate waarin de specifieke referentieregels voor posters (zie hoger) worden gerespecteerd en toegepast.
- Mondelinge posterpresentatie: presentator
 - De mate waarin de presentator de tijd (minimum 5 minuten, maximum 10 minuten) respecteert.
 - De mate waarin de presentator inhoudelijke kennis heeft en deze kennis op een vlotte en verstaanbare manier aan publiek kan overbrengen;
 - Het enthousiasme waarmee de poster wordt voorgesteld;
 - Het taalgebruik van de presentatie tijdens de presentatie en bij het beantwoorden van de vragen;
 - De inhoudelijke kwaliteit van de bespreking;
 - De mate waarin alle onderdelen van de poster tijdens de posterpresentatie aan bod komen;
 - De kwaliteit van de antwoorden op vragen van medestudenten en het didactisch team.
- Mondelinge posterpresentatie: publiek
 - De mate waarin de groepsleden aandachtig luisteren naar de mondelinge posterpresentatie van andere groepen en waar mogelijk enkele kritische vragen stellen;

Design of Medical Devices Conference

DMD Conference

DMD Home
Conference Overview
Registration - Jan. 1, 2017

Conference Sponsors
How to Become a Sponsor

2017 Program
Innovation Workshop
New This Year!
Keynotes & Featured Speakers

Proj.
3-in-5 Competition

Int.
Call for Papers - Closed

Rou.
Student Showcase - **OPEN!**

Pos.
Valuation Competition - **OPEN!**

3M
5.101 Run/Walk
A Heart to Learn
Career Fair
Lab & Center Tours

Con.
For Session Organizers
For Invited Speakers
Technical Session Committee

Con.
Travel & Accommodations
Image Gallery
Connect With Us

DMD Related Information:

Past DMD Conferences
Related Conferences
Conference Awardees
Subscribe to DMD Mailing Lists

Conference Presented by:

Academic Health Center
College of Science and Engineering
Institute for Engineering in Medicine
Mechanical Engineering
Medical Devices Center

3M

Scientific Poster Sessions 1 & 2
Poster Presentation Instructions

Session 1: Tuesday, April 11, 2:30-4:00 | **Session 2:** Wednesday, April 12, 2:30-4:00

Submission and acceptance of a contributed paper to the [Call for Papers](#) is required for participation in one of the Scientific Poster Sessions. Lead authors of accepted contributed papers will receive an email with details about when they will be presenting and a request for confirmation of attendance at the assigned poster session on Tue., April 11 or Wed., April 12.

- Set-up can be done anytime after 7:30am.
- At least one author must be present at the poster during the designated poster session times. (Tuesday or Wednesday 2:30-4:00)
- The allotted tackable poster space is 91" wide x 45" tall.
- Please follow good design principles in preparing your poster. [Click here for helpful tips.](#)
- Limited number of Push Pins will be provided. (When you begin to tear down, gather all pins and place them on the board the way you found them.)
- Tables will not be available for this event.
- There will not be AC power next to your board.
- There will be space to store your posters during the conference. Pre-shipment of posters is NOT available. See conference staff at the registration desk on the 2nd Floor of The Commons Hotel, if you wish to store your poster.

Registration:
All presenters are required to register for the conference by March 27, 2017. Visit the conference [Registration Page](#) and register as a "Poster Presenter". *NOTE: If you are a student, there is a student option within the participant type.

Paper Publication:
Final accepted 2-page technical briefs will be published in the June or September issues of the [ASME Journal of Medical Devices](#). Publication is conditional to the poster being presented during the 2017 DMD Conference.

Authors are encouraged to expand their conference papers into full-length papers for submission to the ASME Journal of Medical Devices through its normal journal article submission process.

Letter of Invitation:
The DMD Conference staff would be happy to provide a letter of invitation to those that send a written request to the DMD Conference Staff, dmdconf@umn.edu. Please include the following: First & Last Name, Mailing Address, Paper Number and Paper Title.

Certificate of Presentation:
If you require a Certificate of Presentation, email the DMD Conference Staff, dmdconf@umn.edu with the subject heading "Presentation Certificate Request" AFTER April 24, 2017.

Judging Criteria for Poster Presentation

- First Impression:
 - How difficult is it to read the poster?
 - How are color schemes used, are they easy on the eye?
 - How crowded is the poster?
 - Is there a good flow of information (logical, layout of information)?
 - Does the poster stimulate interest and discussion?
- Layout:
 - Is the poster visually jumbled?
 - How easy is it to follow the sequence in the poster?
- Readability:
 - Is font size or style easily readable?
 - How much text does the poster contain?
 - Are there many grammar or spelling mistakes?
- Title:
 - How specific/adequate/long/short is the title?
- Identification:
 - Can the author(s) be easily identified?
 - Is contact information available (i.e.. Department/ University)
- Aims/ Objectives:
 - Are they clearly stated?
- Methods:
 - How detailed, appropriate, original are the methods and is there enough explanation?
- Results:
 - How clear and well labelled are graphs and figures?
 - How complex are graphs?
 - How well are the results presented?
- Conclusions:
 - Are any conclusions presented and if so do they reflect the aims and are they supported by the data?
 - Is there a memorable "take-home" message?
- Scientific content:
 - Was the research put into broader context/ justification for research?
 - Was the content suitable for experts and non-experts alike?
 - Was there sufficient scientific explanation?
- Student:
 - How much do the student's explanations demonstrate knowledge/ ownership/ enthusiasm for his/her work?

<http://www.ncl.ac.uk/fms/postgrad/skills/documents/JudgingCriteriaforPosters.doc>



11

Academische poster: publiek

• Publiek?

- Wie is mijn publiek?
 - Collega concurrent
 - Collega's binnen het domein
 - Collega's buiten het domein
- Wat weet mijn publiek van mijn onderzoek?

• Maak een storyboard

- Met welke boodschap wil ik mijn publiek naar huis sturen?
- Wat is de logische volgorde waarin de informatie moet gebracht worden?
- Hoe breng ik de boodschap over?
Combinatie tekst – grafische elementen – kleur

ICTS



12

Academische poster: publiek

- Hou rekening met:

- Publiek heeft maar een paar minuten per poster.
- Probeer de aandacht te halen van de zowel de ‘*browsers*’ als de ‘*in-depth*’ bezoekers.
- Vergemakkelijk het lezen.
- Maak het begrijpbaar.
- Poster mag geen verduidelijkingen vereisen.
 - Mondeling kan er op details worden ingegaan.
 - Verwijzing naar website.

ICTS



13

Academische poster: inhoud

- Vertrek van scratch

- Maak geen samenvatting van een paper, rapport, tekst, ...
- Vertrek niet vanuit een bestaande presentatie / slideshow.

- Maak een duidelijke keuze over de essentie die de poster **moet** overbrengen:

- | | |
|---|---------------|
| • Welk probleem(en) worden aangepakt? | (Objectieven) |
| • Waarom is dit probleem belangrijk? | (Achtergrond) |
| • Hoe wordt het probleem aangepakt? | (Methodes) |
| • Wat zijn de resultaten van jouw werk? | (Resultaten) |
| • Wat zijn de besluiten en implicaties? | (Besluit) |

ICTS



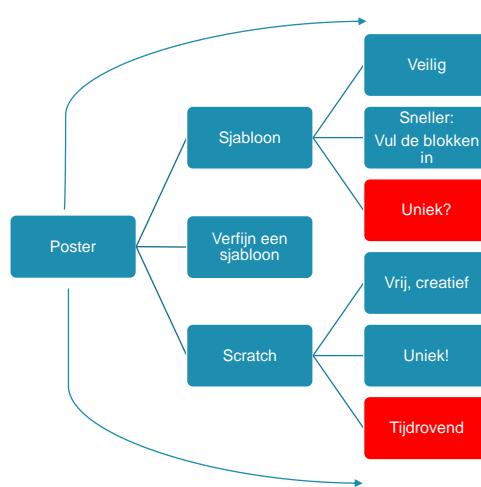
14

Academische poster: inhoud

Inhoud voor deze opdracht:

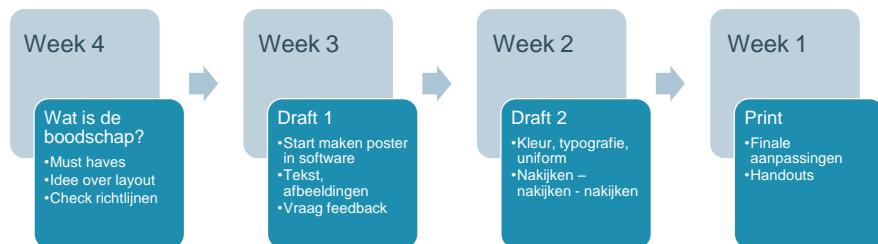
- Inleiding
- Probleemdefiniëring
- Analyse van het probleem
- Keuze en ontwerp van de oplossing
- Besluit
- (Bibliografie)

Academische poster: layout



Academische poster: timing (ideale wereld)

- Voorzie genoeg tijd !
 - Wacht niet tot de laatste minuut.
 - Er zullen altijd een aantal zaken langer duren...
- Schakel collega's, vrienden, ... in bij het brainstormen/nakijken van de poster



17

KU LEUVEN

Academische posters elementen

Frank Van Puyvelde – ICTS



18

Inhoudelijke elementen

How well we communicate is determined not by how well we say things,

But by how well we are understood

Paul Spencer Perfect Posters! - <http://prezi.com/am3brxp85ivq/perfect-posters/>

ICTS



21

Elementen

- Titel
- Auteur(s) + affiliatie
- Abstract/Inleiding
- Methode
- Data/resultaten
- Besluit + Verder werk
- Referenties
- Dankwoord

ICTS



22

Standaard layout

Title that hints at the underlying issue or question and is formatted in "sentence case"

Your name(s) here
 Department of Biology, Swarthmore College, Swarthmore, Pennsylvania 19081

Introduction
 This is a Microsoft Word document for lab reports. Click here for [instructions](#). If you have trouble with “Word” and “Word .docx” files, repeat words with your mouse until it says “Word” again. If you’re still having trouble, contact your professor for help. Most reports will be graded on how well they communicate their results.

Materials and methods
 In brief, and as we’ll be encouraged to do in our lab reports, describe exactly what you did in the experiments you conducted. We want to know about the procedures, details, however fascinating they may be, in your experiments. Describe the first thing you did. Then, the second. Then, the third. And so on. Don’t be afraid to use some “black box” language here if simple explanations (other paragraphs) is sufficient better if your test doesn’t work, explain what you did, then what went wrong and how it was different. Be specific about what you did, especially inserting numbers into longer sections (e.g., “I tested the effect of 1M NaOH on the growth of 1000 cells” is good, “I used 1M NaOH on the cells” is not).

Your main test is a reason to read if one were a “why?” much as Politics is a reason to read if one were a “who?” much as Sports is a reason to read if one were a “what?” much as War is a reason to read if one were a “where?” much as the Earth is a reason to read if one were a “when?”

Literature cited

Results

This is a Microsoft Word document for lab reports. Click here for [instructions](#). If you have trouble with “Word” and “Word .docx” files, repeat words with your mouse until it says “Word” again. If you’re still having trouble, contact your professor for help. Most reports will be graded on how well they communicate their results.

Conclusions

This is a Microsoft Word document for lab reports. Click here for [instructions](#). If you have trouble with “Word” and “Word .docx” files, repeat words with your mouse until it says “Word” again. If you’re still having trouble, contact your professor for help. Most reports will be graded on how well they communicate their results.

KU LEUVEN

Titel van groepsrapport

Groep X: auteur(s)

Persoonsgerichte en organisatiegerichte methoden van de criminologische interventie

Inleiding

Lorum ipsum dolor sit amet, consectetur adipiscing elit. Proin et augue laoreet, feugiat nisl a, sagittis est. Aliquam convallis viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis velit. Donec finibus finibus egosim. Nam vel. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scelerisque dignissim quam nec, lucis ipsum. Aliquam faucibus nisl et amet magna cursus lacinic.

- Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum augue, sem sem.
- Cras orci gravida odio, et effictor torior incidunt sed. Ut eu puris ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, leo sem consectetur ipsum, sed egestas sapien nisi. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eu porttitor. Aliquam vulputate metus eu mi ullamcorper faucibus. Duis sit amet justo scelerisque dignissim quam nec, lucis ipsum. Aliquam faucibus nisl et amet magna cursus lacinic.

Probleemdefiniëring



Subtitel

Lorum ipsum dolor sit amet, consectetur adipiscing elit. Proin et augue laoreet, feugiat nisl a, sagittis est. Aliquam convallis viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis velit. Donec finibus finibus egosim. Nam vel. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scelerisque dignissim quam nec, lucis ipsum. Aliquam faucibus nisl et amet magna cursus lacinic.

- Etiam suscipit ex quis orci imperdibil pellentesque. Nunc scelerisque congue porttitor.
- Nam morbi, mattis quis consectetur semper, iaus luctus dapibus nec. Sed ut vestibulum godo libes a teo. Nullam mollis dictum interdum.

Analyse van het probleem

Subtitel

Lorum ipsum dolor sit amet, consectetur adipiscing elit. Proin et augue laoreet, feugiat nisl a, sagittis est. Aliquam convallis viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis velit. Donec finibus finibus egosim. Nam vel. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scelerisque dignissim quam nec, lucis ipsum. Aliquam faucibus nisl et amet magna cursus lacinic.

Keuze en ontwerp oplossing

Suspendisse sollicitudin hendrerit malesuada. Sed id est accumsan, feugiat turpis eu dictum ante. Vivamus id maximus orci, nec efficitur augue. Sed ullamcorper, augue eu efficitur, eu dictum ante. Class aptent taciti sociosqu ad montes, nascetur ridiculus mus. Curabitur maximus rhoncus neque sit amet maximus. Praesent a neque et leo luctus viverra vitae non justus. Nullam nec risus non sem bibendum viverra. Vestibulum sit amet.

Subtitel

Suspendisse sollicitudin hendrerit malesuada. Sed id est accumsan, feugiat turpis eu dictum ante. Vivamus id maximus orci, nec efficitur augue. Sed ullamcorper, augue eu efficitur, eu dictum ante. Class aptent taciti sociosqu ad montes, nascetur ridiculus mus. Curabitur maximus rhoncus neque sit amet maximus. Praesent a neque et leo luctus viverra vitae non justus. Nullam nec risus non sem bibendum viverra. Vestibulum sit amet.

Besluit

- Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum augue, sem sem.
- Cras orci gravida odio, et effictor torior incidunt sed. Ut eu puris ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, leo sem consectetur ipsum, sed egestas sapien nisi. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eu porttitor. Aliquam vulputate metus eu mi ullamcorper faucibus. Duis sit amet justo scelerisque dignissim quam nec, lucis ipsum. Aliquam faucibus nisl et amet magna cursus lacinic.

Bibliografie

Suspendisse sollicitudin hendrerit malesuada. Sed id est accumsan, feugiat turpis eu dictum ante. Vivamus id maximus orci, nec efficitur augue. Sed ullamcorper, augue eu efficitur, eu dictum ante. Class aptent taciti sociosqu ad montes, nascetur ridiculus mus. Curabitur maximus rhoncus neque sit amet maximus. Praesent a neque et leo luctus viverra vitae non justus. Nullam nec risus non sem bibendum viverra. Vestibulum sit amet.

Element: titel

- Moet heel interessant zijn (uitdagend)
- Moet publiek lokken vanop afstand
- Moet goed zichtbaar zijn vanop 5 m
- Beknopt
 - Indien de titel te lang is, probeer in te korten, herformuleren
 - Niet de fontgrootte aanpassen
 - Vermijd het gebruik van ‘:’

Element: titel

Vergelijk:

We have promoted and fostered undergraduate research using a required technical communication course

Introduction
The Under Commission Report has urged universities to "make research-based learning the standard" for the education of engineers.

One idea to promote undergraduate research is to use an option in the traditional technical communication course, which would be required of all students, to offer an undergraduate research option in the College of Engineering at Virginia Tech.

Programs for Students (1-3 years)

Undergraduate Research Experience Center

Research Experiences Summers 2005 and 2006

Undergraduate Research Symposium

Conclusions

Results

	Goal	Outcome
Number of students: 85 course	25	25
% of students: undergraduate students	46%	55%
% of students: graduate students	53%	45%
Number of faculty research partners	23	42
Average number of publications per student	1.0	1.0
Number of students: 85 course	25	25
% of students: undergraduate students	46%	52%
% of students: graduate students	53%	48%
Participation in 2006 research symposium	25	25
Participation in 2006 research symposium (paper or poster)	18	18

Vergelijk:

- *"A Study of Automobile Emissions Generated at Drive Up Windows"*
- *"5% of Air Pollution Derives from Cars Idling at Drive Up Windows"*
- *"Drivers Spend an Average of 7.2 Minutes Idling at Drive Up Windows"*
- *"Drive Up Windows pollute and frustrate"*

Element: auteurs/affiliatie

- Schrijf voornamen volledig uit
 - Initialen en titelatuur zijn niet nodig
 - Voeg evt. een foto toe van degene die de poster presenteert, of highlight naam
 - Check met promotor over volgorde van de medewerkers
- Vergeet de affiliatie niet
 - Bach criminology KU Leuven

Element: auteurs/affiliatie

H-114

Therapeutic vaccination with Remune induces CD8⁺ HIV-1 specific cytotoxic responses in patients with chronic HIV-1 infection

L. Valdez¹, J. Navarro¹, B. Santamaría¹, C. Rodríguez-Sainz¹, J. Carbonell¹, J. Gil¹, S. Moreno¹, D. Podzamczer¹, J. González Lahoz², E. Boza², P. Vilanant¹, I. Ocaña¹, B. Clotet¹, R. Rubio¹, F. Pujol¹, J. Maraldos¹, C. Quered¹, R. Blazquez², E. Ferrer², M. Diaz³, A. Jou³, G. Sirera³, J. Peña³, P. Ojeda⁴, J. Gatell⁵, F. López¹, M. Desco⁶ and E. Fernández-Cruz² for STIR-2102 Team

University General Hospital Gregorio Marañón, Madrid, Spain

Introduction

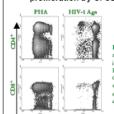
In a phase II clinical trial (STIR-2102), using an inactivated HIV-1 immunogen (Remune™) in combination with ART, we have demonstrated that therapeutic vaccination can induce significant CD8⁺ T-cell responses in the absence of ART.

Given the lymphocyte (CTL) activity is well known as a critical component of the immune response against replication competent virus, we hypothesized that therapeutic vaccination in combination with ART could influence the presence of CTLs and their ability to induce cell responses that could impact the control of patient's viral replication.

Keywords: Therapeutic vaccination, Remune™, CTLs

Results

I. HIV-1 specific CD4⁺ and CD8⁺ T-cell proliferation by CFSE assays



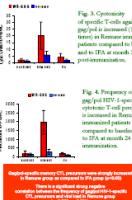
II. HIV-1 specific CD8⁺ T-cell IFN-γ production by ELISpot

Table 1: Comparison between Remune and PVA groups in Remune group vs. PVA group.

Group	Mean ± SEM	Median ± SEM	n
PVA	0.000 ± 0.000	0.000 ± 0.000	10
Remune	0.000 ± 0.000	0.000 ± 0.000	10

III. HIV-1-specific T-cell cytotoxic activity by ICYT release assays

Table 2: Correlation between proliferating HIV-1 specific CD8⁺ T-cells and ICYT total load in Remune group vs. PVA group.



Conclusions

Therapeutic vaccination with Remune™ induces strong lymphoproliferative CD4⁺ and CD8⁺ T-cell responses in chronic HIV-1 infected patients in comparison with PVA.

*Therapeutic vaccination with Remune™ induced the highest levels of CD8⁺ T-cell proliferation with respect to PVA group and of IFN-γ producing CD8⁺ T-cells in the Remune group.

†Proliferation of CD8⁺ T-cells and IFN-γ production were significantly higher in the Remune group than in the PVA group.

‡ICYT total load was significantly higher in the Remune group than in the PVA group.

§The presence of the IFN-γ gene in the CD8⁺ T-cells was measured by RT-PCR.

¶The presence of the IFN-γ gene in the CD8⁺ T-cells was measured by RT-PCR.

Literature cited

Plana-Díaz L, Almeida J, et al. Therapeutic administration with an inactivated HIV-1 immunogen (Remune™) induces CD8⁺ T-cell responses in chronic HIV-1 infected patients. *AIDS* 2002; 16: 1031-1038.

Plana-Díaz L, Jiménez J, et al. The presence of the IFN-

γ gene in CD8⁺ T-cells correlates with the total load of CD8⁺ T-cells. *Recept Dev Variab* 2003 Dec; 14(12): 1121-1126.

Affiliations

1. Instituto de Higiene "Margarito Muñoz"
2. Hospital Universitario La Paz
3. Centro de Investigación Biomédica en Red Enfermedades Infecciosas
4. Hospital Universitario La Paz
5. Hospital Universitario La Paz
6. Hospital Universitario La Paz
7. Hospital Universitario La Paz
8. Hospital Universitario La Paz
9. Hospital Universitario La Paz
10. Hospital Universitario La Paz
11. Hospital Universitario La Paz
12. Hospital Universitario La Paz
13. Hospital Universitario La Paz
14. Hospital Universitario La Paz
15. Hospital Universitario La Paz

For further information

Please contact: www.stir-2102.com

Element: abstract / inleiding

- Geeft kernpunten/situering van het onderzoek weer
- Verklaart waarom de poster belangrijk is
- Hulp bij structuur van poster
- 150 – 200 woorden

Element: data/resultaten - tekst

- KISS (keep it short and simple)
- Vermijd alle niet-essentiële informatie
- Vermijd voetnoten
- Vermijd afkortingen, acroniemen, jargon
- Gebruik niet meer dan 1000 woorden
- Gebruik grafieken als visuele aandachttrekker
- Vuistregel:
 - 20% tekst
 - 40% grafisch
 - 40% witruimte (durf witruimte gebruiken!)

Element: data/resultaten - tekst

- Origineel

The ideal anesthetic should quickly make the patient unconscious but allow a quick return to consciousness, have few side effects, and be safe to handle.

- Posterversie

Ideal anesthetics

- Quick sedation
- Quick recovery
- Few side effects
- Safe to handle

Element: data/resultaten - grafieken

- Tabellen:
 - Bij een beperkt aantal gegevens
 - Label de kolommen
- Grafieken:
 - Bij groot aantal datapunten
 - Vergeet niet: curves benoemen, titel, assen benoemen
- Maak de grafieken groot genoeg zichtbaarheid vanop 2m!
- Gebruik vette lijnen in grafieken en tabellen voor een goede zichtbaarheid
- Probeer grafische elementen uniform in uitzicht en afmetingen te houden

Element: besluit

- Belangrijk onderdeel van de poster
- Benadrukken van de belangrijke/sterke punten
- Nieuwe inzichten/interpretaties of onderzoeksbronnen/gebieden worden hierin geplaatst
- Gebruik zoveel mogelijk *bullets* om de verschillende elementen te scheiden

Element: dankwoord / referenties

- **Dankwoord**
 - Vermeld fondsen,
 - Wie behulpzaam was bij het onderzoek
- **Referenties**
 - Vermeld enkel belangrijkste referenties – geen literatuurstudie
 - Kan altijd uitgebreid worden bij conversatie

Top-Down Teaching In Chemistry:
A Stylistic Change in Teaching to Promote Student Engagement

TA Scholar: Geoff Thomas
Chemistry

Faculty Mentor: Laya Kesner
Chemistry

BACKGROUND

- Traditional Bottom-Up teaching is conducted by establishing and building upon basic principles. This methodology has historical precedence and is currently more commonly used in science courses.
- Often times the least captivating material is the first impression a student gets of the lesson.
- Top-Down teaching works by breaking down familiar, complex ideas. While this method is less common in modern scientific curriculum, it can be hypothesized that this is potentially a more effective form of learning.
- Top-Down methodology is a natural learning process where a natural phenomenon is observed and then broken down until the basic principles and reasons for its actions are discovered.

THE PROJECT

- Approach lesson design in a stylistically different manner while covering the same material.
- Start with a "Real-Life" example and build down to core concepts
- Ask the students questions
- Discuss students' possible theories and hypotheses and reason through these
- Add as a moderator and guide the discussion in the appropriate direction
- Here the methodology is implemented in an elementary chemistry discussion / lab section (CHEM 1120)

Examples

"This [class] is interesting... It's examples we usually see"

"It keeps me engaged... What we're learning feels tangible!"

"It definitely worth it... the class is fun."

ASSESSMENT & BENEFITS

Benefits of Top-Down methodology

- Higher class popularity
- Improved knowledge retention through memorable learning experiences
- Students are more engaged in classroom discussions and lessons
- More questions asked by students
- More personal class experience for students
- Teaches students how to critique scientific ideas
- Positive course feedback as students learn and benefit from a superior teaching environment
- Improvement in test scores throughout the course

Evidence

Top-Down teaching may not be the most effective means of instruction in every instance; however, it represents a powerful tool in an instructor's repertoire that is currently underused.

"When I relate the information to things I know, I remember it better"

ACKNOWLEDGMENTS & REFERENCES

I would like to acknowledge the help of Laya Kesner, The University of Utah Department of Chemistry and CTLT for their assistance in this project. I would also like to thank all the students in the CHEM 1120 course that participated in this project.

References

1. Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical evaluation of three presences within the Community of Inquiry framework. *Journal of Asynchronous Learning Networks*, 3, Retrieved November 12, 2007, from <http://www.sfu.edu/~drgarrison/jaln/vol3/no1/vol3no1.htm>

2. Garrison, D. R., & Arbaugh, J. (2007). Community of Inquiry: Framework, Variations and Instruments Development. Unpublished Conference Proceedings. 18th Annual International Conference of the Association for Educational Communications and Technology, April 2007, San Antonio, TX, USA.

3. Garrison, D. R. (2007). Critical Evaluation of Inquiry: Review, Logic, Cognition and Teaching Presence Issues. Unpublished Doctoral Dissertation. University of Alberta, Edmonton, Alberta, Canada. http://etd.library.ualberta.ca/available/docs/eoutput_10003/etd-04122007-104343.pdf

4. Garrison, D. R., & Arbaugh, J. (2005). The Community of Inquiry framework: An update. *The Internet and Higher Education*, 9(2), 97-105.

5. Garrison, D. R., & Vaughan, N. C. (2008). The Community of Inquiry framework: An update. *The Internet and Higher Education*, 12, 175-180.

6. Garrison, D. R., & Vaughan, N. C. (2008). How Blended Learning Can Support a Future of Lifelong Learning. *Community of Inquiry (Electronic Version) Journal of Asynchronous Learning Networks*, 10. Retrieved November 12, 2007 from <http://www.sfu.edu/~drgarrison/jaln/vol10/no1/vol10no1.htm>

ICTS

Lawrence Tech Improving Teaching Presence in a Virtual Classroom

R. Bush, P. Castelli, P. Lowry, and M. Cole

Abstract

The purpose of this study is to examine and determine the effects to which the Community of Inquiry model can affect the dimensions of teaching presence, exist in online and blended courses and suggest methods for improving teaching presence at Lawrence Technological University (LTU) in Southfield, Michigan. The Community of Inquiry model (Garrison et al., 1999) aims to investigate how written language used in computer conferencing activities promotes critical and higher-order thinking. Research on this model suggests critical and higher-order thinking occurs when students are engaged in inquiry, engagement composed of interests and students who effectively demonstrate critical thinking, interpersonal and interaction skills in the classroom. The current study, while ongoing, reveals significant relationships were found between social, cognitive and teaching factors in participants who were very likely to take an online course in the future. Significant relationships were also found between teaching factors and student attitudes pertaining to online vs. traditional course knowledge and course satisfaction. There were strong endorsements pertaining to participant's first experience with online or hybrid courses. Differences are explored and future directions are stated for promoting international collaborations in higher education.

Community of Inquiry Model

Garrison et al. (1999) originated the Community of Inquiry model to investigate how written language used in computer conferencing activities promoted critical and higher-order thinking. The model assumes that valuable learning in online and blended courses is a function of the interaction between social presence, cognitive presence and teaching presence (Arbaugh et al., 2007).

Social Presence: Is the ability of instructors and students to project themselves into the class by using affective, interactive, and cohesive techniques (Anderson, Rourke, & Garrison, 2001; Arbaugh et al., 2007; Garrison, 2007; Garrison et al., 1999; Vaughan & Garrison, 2008).

Cognitive Presence: Involves critical thinking and the ability of learners to construct meaning through sustained communication (Arbaugh et al., 2007; Garrison, 2007; Garrison et al., 1999).

Teaching Presence: Examines the design of the course, discourse facilitation and direct instruction typically performed in courses where learning management systems are involved (Anderson et al., 2001; Garrison, 2007).

Method

This study used a survey constructed from the Community of Inquiry framework (Arbaugh et al., 2007). The survey allowed the researchers to examine the three presences within the Community of Inquiry model and how they may be influenced by gender, age and degree status. Furthermore, the survey allowed the researchers to examine the relationships between the three presences of the model as well as comparing them in online and blended classroom settings.

The survey was developed by the researchers, who had the ability to administer the survey directly by the researchers, the minimal time required by the participants to complete the survey and the rapid turnaround of data collection. Group administration of self-administered surveys generally provide higher cooperation rates and much lower cost to administer (Fowler, 2002).

Results/Conclusions

While this study continues to collect data, the analysis of the results thus far indicates a relationship exists between the student's perceived and actual interactions with their instructor and perceived learning. This perceived relationship directly affects student satisfaction (Swan, 2006). When students are provided frequent timely public and private feedback they tend to view the higher levels interaction with the instructor as a significant factor in their overall level of learning. At this point, the study indicates that students who have had a positive experience in online and blended classrooms will continue to take courses in these formats. Key to this is how well online and blended classrooms are constructed and taught; standards for Blackboard course layout, instructor training, and well articulated University expectations will continue to positively contribute to student satisfaction in online and blended classrooms.

Future Work

The Community of Inquiry Model, specifically Teaching Presence, thus far indicates the level of direct interaction and how well courses are designed and taught. As Swan et al. (2006) notes, "Higher levels of reported interaction with instructors have been found to result in higher levels of perceived learning". We will be continuing the use of the Community of Inquiry model and aim to include more institutions and programs in our study to understand the importance of Teaching, Social and Cognitive presence, as well as identify techniques to improve those areas and to create stronger online and blended courses.

References

Anderson, T., Rourke, L., Archer, W., & Garrison, D. R. (2001). Assessing Teaching Presence in Computer Conferencing Transactions (Electronic Version). *The Journal of Asynchronous Learning Networks*, 3, Retrieved November 12, 2007, from <http://www.sfu.edu/~drgarrison/jaln/vol3/no1/vol3no1.htm>

Arbaugh, J. A., Chonko, L. M., Diaz, S., Garrison, D. R., & Reardon, J., et al. (2007). Community of Inquiry Framework: Variations and Instruments Development. Unpublished Conference Proceedings. 18th Annual International Conference of the Association for Educational Communications and Technology, April 2007, San Antonio, TX, USA.

Garrison, D. R. (2007). Critical Evaluation of Inquiry: Review, Logic, Cognition and Teaching Presence Issues. Unpublished Doctoral Dissertation. University of Alberta, Edmonton, Alberta, Canada. http://etd.library.ualberta.ca/available/docs/eoutput_10003/etd-04122007-104343.pdf

Garrison, D. R., & Arbaugh, J. (2005). The Community of Inquiry framework: An update. *The Internet and Higher Education*, 9(2), 97-105.

Garrison, D. R., & Vaughan, N. C. (2008). How Blended Learning Can Support a Future of Lifelong Learning. *Community of Inquiry (Electronic Version) Journal of Asynchronous Learning Networks*, 10. Retrieved November 12, 2007 from <http://www.sfu.edu/~drgarrison/jaln/vol10/no1/vol10no1.htm>

ICTS

K-12 Summer Engineering Outreach Programs – Curriculum Comparisons Between Ages, Minorities, and Genders

Andrew L. Gerhart
Lawrence Technological University, Southfield, MI

Overview: Ensuring that the level of the material presented used for a K-12 program is not too easy or too advanced can be a challenge to the instructor. After ensuring that the material will be of interest to a variety of students (i.e., minorities, females, etc.) can be a challenge. Lawrence Technological University has two outreach programs each summer. One program, called the Summer Science Institute, is for high school Juniors and Seniors. The other program, called the Middle School Program, is for 5th through 8th graders. Both programs are open to students who have demonstrated an interest in the students are logical, and independently half are minorities. A review of the interactions for the summer of 2004 is presented. In addition, in the summer of 2004, the students were surveyed to determine if the material was at the appropriate level, which activities were most valuable/useful, if certain activities appealed more to females, and certain activities appealed more to minorities. These survey results and more are presented.

The Summer Science Institute

- Openings for over 17 weeks
- Workshops as one of the Midwest's oldest and most respected engineering outreach programs for secondary school students.
- Limited to outstanding students who have demonstrated superior academic achievement.
- The students must be in high school, and may be from their first year of chemistry.
- The students must have a "B" average with a minimum of 3.0 in science, high school math and science courses.
- The program spans over 5 weeks with a different theme each week.
- Some of the week sessions include engineering, chemistry, physics, computers, robotics, biology, math, and math.
- 50% - 50% Females, 85% Minorities



Drop test of egg carton. Package and materials made from a few sheets paper and a thin piece of wood.

Summer Data

- Middle school age program (ages 11-15).
- Week-long sessions with shorter days than the SSI.
- Some of the week sessions include engineering, computer-aided design, robotics, chemistry, physics, aerodynamics, Logo robotics, and graphic animation, and web design.
- 2004 - 25%, Females, 40% Minorities

Summer Odyssey – Middle School Program		
All Participants	Female/Male	Minority/White

Student Activities

- Problem solving with robotics
- Learning the art of estimation and problem solving with a bridge building activity
- Packaging and drop testing using eggs
- Stacking egg design, build, and testing
- Drinking straw bridge design competition
- LabVIEW Dynamics Laboratory tour
- LabVIEW Multisim Power experiments, electricity generation
- Plant trays - Fertilizer type



One of the solar ovens that was designed, built and tested by a high school student.

Building a drinking straw bridge

ICTS 

37

Lawrence Tech

ABSTRACT

- Math Foundations for Science Education proposed as a seminar to be implemented within the existing MSE 6103 Introductory Course.
- Students place into the seminar on a need basis, per assessment Survey of Mathematical Skills, administered through Blackboard.
- The Math Foundations seminar is available in an online environment, accessed through Blackboard.
- Students must complete the seminar and/or successfully pass the survey within the first semester of the MSE program.

BACKGROUND

- Master of Science Education students are teachers working toward state endorsement in science.
- May not have utilized mathematical skills since early undergraduate experiences and therefore a reminder to become familiar with the required mathematical skills
- Applied to Chemistry, Biology, Astronomy, Geology and Meteorology.
- State Certification Standards and No Child Left Behind Legislation requires teachers to utilize technology within professional development.
- The National Science Education Standards emphasizes the integration of Science with the tools of mathematics.

RESOURCE SELECTIONS

Das Riman. (2004). Mathematics for College Physics. Pearson Prentice Hall. Upper Saddle River, NJ. ISBN 0-13-141427-8.
Keedy, Marvin L., and Bittinger, M. L. (1979). Elementary Mathematics, Third Edition. Addison Wesley Reading, MA. ISBN 0-201-03837-4.
Math Review for Science. (2000). Houghton-Mifflin.
National Research Council. (1996). National Science Education Standards. National Academy Press, Washington, DC.

MATH FOUNDATIONS SURVEY DESIGN

- Content formulated by MSE instructors and selected from problem-solving sections of MSE course textbooks.
- General problem solving techniques; scientific notation, units, dimensional analysis, elements of algebra, logarithms and exponential functions, trigonometric series, series expansion, elements of geometry, trigonometry, vector plots and curve fitting problems and solutions.
- Adaptive test questions generated by Blackboard interface and Topic-based Pool Manager feature
- Instructor uses high learning curve for input of items utilizing Blackboard interface.
- Utilizing reflective resources to adapt to survey item needs.

MATH FOUNDATIONS MODULE DESIGN

- Modular Structure and Specifications
- Objectives
- Video Stream Recording Tutorial
- Exploration and Demonstration
- Practice Problems
- Practice Problems
- Multiple choice problems
- Multiple generated problems
- Solutions available using Adaptive Release
- Immediate Feedback
- Interactive Self-Assessment
- Online resources with practice problems
- Modules developed using Learning Items

CONTENT SELECTION

- Developed modules based on Math Skills Survey results, identifying students had most difficulty completing successfully
- Exponential Functions, Logarithms, Trigonometry, Solving Algebraic Equations, Coordinate Graphing and linear equations
- Use of real-world problems; Interactivity

ONLINE RESOURCE SELECTIONS

RESULTS

• Survey Administered Fall 2007, 3rd class meeting of Introductory Seminar MSE 6103.

- 7 students attempted the survey
- 4 students successfully completed the survey
- At this time, One learning module, topic-based and general math links, and outside resources available for Math Foundations Seminar.
- The 2nd Math Skills Survey administered Fall 2007, mid-term
- Same 4 students successfully completed version 2 survey
- Student Feedback from required Reflective journal indicated need for practice problems
- Students feed back for examples of survey format before administration.

• The 1st Math Skills Survey administered Fall 2007, 3rd class meeting of Introductory Seminar MSE 6103.

- 7 students attempted the survey
- 4 students successfully completed the survey
- At this time, One learning module, topic-based and general math links, and outside resources available for Math Foundations Seminar.
- The 2nd Math Skills Survey administered Fall 2007, mid-term
- Same 4 students successfully completed version 2 survey
- Student Feedback from required Reflective journal indicated need for practice problems
- Students feed back for examples of survey format before administration.

RESULTS

• Survey Administered Winter 2008, 3rd class meeting of MSE 6103 Introductory Seminar.

- Students given preview of types of questions to be asked on Math Skills Survey.
- 2 students participated in survey
- 2 students successfully completed survey.
- 1 student participated in Math Foundations seminar
- Non-native English speaking international student, took survey in English, did not speak English fluently
- One student directed to contact Academic Math Tutoring with assistance from Academic Achievement Center.

FUTURE PLANS

- Seminar Modules to be incorporated into the Master of Science Education Organization Blackboard site.
- Develop survey may Access and Utilize Learning Modules on topics as they are addressed at any point in the program.
- Develop survey may Access and Utilize Learning Modules based on difficulties. Use Survey and Learning Module format to develop topics for particular course material.

Grant proposal developed by Professor Sandra Yasuma and Dr. Valentina Tobos.

Selected to receive a Veraldi Instructional Technology Resource Center Faculty Grant for developing coursework for collaborative e-learning courses (2007).

Deepest Gratitude to VITRC for the faculty Grant Opportunity and support to implement it. Dr. Valentina Tobos (MSE Program Director), and Dr. Marilyn Raude.

ICTS 

38

The Effectiveness of Humane Teaching Methods in Veterinary Education
ALTEX: Alternatives to Animal Experimentation 2007;24(2):91-109



Andrew Bright BSc, BSc(Hons), CertEd, MRCVS
Consultant Animal Consultants International
London, UK. www.AnimalConsultants.org

aci
INTERNATIONAL

INTRODUCTION
Animal use resulting in harm or death has historically played an integral role in veterinary education, which has been shown to have a negative impact on both student attitudes and future professional practice, such as increased reluctance to treat sick animals and difficulty in relating to the welfare of individual patients. Virtually all veterinary students' 'first real clinical experience' occurs in a non-clinical setting involving live animals, such as dissection, practical, theory, case study, virtually-voiced 'conversations' such as telephone or video conference, and computer simulations.

Method
A systematic review of the literature on the effectiveness of humane teaching methods in veterinary training has been carried out, which is a synthesis of existing and relevant studies using heterogeneity, meta-analysis and other methods to evaluate the evidence for or against the effectiveness of specific teaching methods. Primary studies describing animal, and often peer-reviewed surgery under close supervision, and those describing the application of a variety of humane learning methods, have been included. In addition, a small number of studies comparing the effectiveness of different humane learning methods have been included.

An important part of veterinary surgical training can be viewed as a series of short simulation programs, in which households animals are treated by students under supervision and returned to normal function. As a result, many students feel that this approach is better than the traditional, non-surgical methods used to teach veterinary students. In general, the students gain invaluable experience at much lower risk to the animal. However, it is suggested that as an alternative to dissection, the students gain valuable learning experience by performing surgery under close supervision and that this approach may be more effective than dissection for improving surgical skills and knowledge.

METHODS
Information on humane coverage on biomedical bibliographic databases was assessed, jointly by the European Federation of Animal Protection Societies (EUFAS) and the Animal Welfare Foundation, and the countries' CAB Abstracts, the Cumulative Central Register of Cited References, the Gazetteer of Animal Welfare Information Sources, the Animal Welfare Information Center, the World Health Organization's Medical Subject Headings database, and MEDLINE—the United States National Library of Medicine's journal, library and database system, and the Animal Welfare Information Center's Animal Welfare Literature Database until April 2002. Journals were also checked for additional studies using a Google search and the Animal Welfare Information Center's Animal Welfare Literature Database until June 2002. Journals were also checked for additional studies using a Google search and the Animal Welfare Information Center's Animal Welfare Literature Database until June 2002.

RESULTS
Increasing numbers of veterinary students around the world have adopted non-animal training methods, which have been demonstrated to be equally effective as animal training methods. A recent study of veterinary students published in 1999 to 2000, since assessed surgical technique, found that the students' preferences for the use of animals in the classroom were very similar to those in previous surveys. Another 20% (16%) demonstrated equivalent learning outcomes and 8% (10%) demonstrated higher learning outcomes using humane methods compared to animal methods. Similarly, another study of veterinary students published in 2000 demonstrated learning outcomes using humane methods compared to animal methods, mostly citing concerns about the welfare of the animal being offered. Correspondingly, the peer-reviewed literature on humane methods has indicated that the use of animals in veterinary surgical training is not always the best method to act as teaching methods with those trained in traditional animal use.

METHODS
Information on humane coverage on biomedical bibliographic databases was assessed, jointly by the European Federation of Animal Protection Societies (EUFAS) and the Animal Welfare Foundation, and the countries' CAB Abstracts, the Cumulative Central Register of Cited References, the Gazetteer of Animal Welfare Information Sources, the Animal Welfare Information Center, the World Health Organization's Medical Subject Headings database, and MEDLINE—the United States National Library of Medicine's journal, library and database system, and the Animal Welfare Information Center's Animal Welfare Literature Database until April 2002. Journals were also checked for additional studies using a Google search and the Animal Welfare Information Center's Animal Welfare Literature Database until June 2002.

NON-SURGICAL DISCIPLINES
Veterinary students' attitudes towards the use of animals in the classroom has varied greatly in different countries. A recent survey of veterinary students in the United Kingdom and Ireland found that the students' attitudes towards the use of animals in the classroom were very similar to those in previous surveys. Another 20% (16%) demonstrated equivalent learning outcomes and 8% (10%) demonstrated higher learning outcomes using humane methods compared to animal methods. Similarly, another study of veterinary students published in 2000 demonstrated learning outcomes using humane methods compared to animal methods, mostly citing concerns about the welfare of the animal being offered. Correspondingly, the peer-reviewed literature on humane methods has indicated that the use of animals in veterinary surgical training is not always the best method to act as teaching methods with those trained in traditional animal use.

RESULTS
Increasing numbers of veterinary students around the world have adopted non-animal training methods, which have been demonstrated to be equally effective as animal training methods. A recent study of veterinary students published in 1999 to 2000, since assessed surgical technique, found that the students' preferences for the use of animals in the classroom were very similar to those in previous surveys. Another 20% (16%) demonstrated equivalent learning outcomes and 8% (10%) demonstrated higher learning outcomes using humane methods compared to animal methods. Similarly, another study of veterinary students published in 2000 demonstrated learning outcomes using humane methods compared to animal methods, mostly citing concerns about the welfare of the animal being offered. Correspondingly, the peer-reviewed literature on humane methods has indicated that the use of animals in veterinary surgical training is not always the best method to act as teaching methods with those trained in traditional animal use.

DISCUSSION
The evidence on the effectiveness of humane teaching methods in veterinary training is very limited. One study demonstrated equivalent surgical skills when human cadavers were used versus the use of canine models. However, the students' attitudes towards the use of animals in the classroom were very similar to those in previous surveys. Another 20% (16%) demonstrated equivalent learning outcomes and 8% (10%) demonstrated higher learning outcomes using humane methods compared to animal methods. Similarly, another study of veterinary students published in 2000 demonstrated learning outcomes using humane methods compared to animal methods, mostly citing concerns about the welfare of the animal being offered. Correspondingly, the peer-reviewed literature on humane methods has indicated that the use of animals in veterinary surgical training is not always the best method to act as teaching methods with those trained in traditional animal use.

ADVANTAGES OTHER THAN EDUCATIONAL EFFICACY
There are many other advantages of using humane training methods over animal training methods that may be more important than the educational outcome. These include the reduction in cost of training, reduction in animal welfare issues, and reduced risks for students to act as learning methods. When compared with 'hands-on' animal use (the norm in veterinary surgical training), a wider range of skills can be taught using humane training methods, instead of those possible with animal use.

SURGICAL TRAINING
Veterinary surgical training permits comparison with traditional human animal use included models, which have been demonstrated to be equally effective as animal training methods. In addition, students can learn from their mistakes in a safe environment, as well as learn the appropriate and safe methods of dealing with the patient, instead of risking injury to the patient.

Overall, the learning outcomes achieved by humane alternatives were at least equivalent to those in animal training methods, and sometimes better. These surgical experts demonstrate their surgical skills without the need to act as learning methods.

Jakob and Farver (1998) found that students treated were exposed to the practice in hospitals during their clinical training. The first-year students learned how to handle the patient in the operating room, but did not learn how to handle the patient in the hospital. They did not learn how to handle the patient in the hospital because they did not have the time to do so. The initial acquisition of these students regarding the use of properly designed instruments results for learning these errors with less time and less cost.

When compared with 'hands-on' animal use (the norm in veterinary surgical training), a wider range of skills can be taught using humane training methods, instead of those possible with animal use.

CONCLUSIONS
When compared with 'hands-on' animal use (the norm in veterinary surgical training), a wider range of skills can be taught using humane training methods, instead of those possible with animal use.

FURTHER INFORMATION
www.vetmed.wsu.edu/vetpath/alternatives.htm
www.animalwelfareinternational.org

KEY REFERENCES
Krieger, A. & De Boe, J. Comparative studies of student performance: humane training methods versus animal training methods in veterinary training, *Journal of Veterinary Education*, 26, 25-31, 2000, available at: www.vetmed.wsu.edu/vetpath/alternatives.htm

ACKNOWLEDGEMENTS
The authors would like to thank the many individuals who have contributed to the development of this paper, particularly Dr. A. Krieger and Dr. J. De Boe.

AUTHORS' NOTE
The authors declare that there is no conflict of interest.

REFERENCES
Krieger, A. & De Boe, J. Comparative studies of student performance: humane training methods versus animal training methods in veterinary training, *Journal of Veterinary Education*, 26, 25-31, 2000, available at: www.vetmed.wsu.edu/vetpath/alternatives.htm

FIGURES
Figure 1: Veterinary student outcomes
Table 1: Veterinary student outcomes

ICTS KU LEUVEN

Inorganic Biochemistry of Iron Proteins
Jared J. Heymann, Claire J. Parker Siburt, Katherine D. Weaver, and Alvin L. Crumbless
Duke University – Department of Chemistry – Durham, NC



Techniques:
Spectroscopic techniques
UV-Visible Spectroscopy
Fluorescence Spectroscopy
Difference Spectroscopy
Stopped-Flow Kinetics
SUPREX
Spectroelectrochemistry



Purpose:
To study iron protein biochemistry from the perspective of the iron Protein = Ligand

Transferin:
Heterogeneous receptor-mediated transport utilizes a short pathway created by an ODTLE motif to measure the variations in visited sites as the analysis is oxidized or reduced. It is ideal for a biological because only a small sample volume is required to act as electron donors.

Iron: Iron is needed for nearly every living cell.

Iron Abundance in Humans: 45-55 mg/kg in humans

Turnover of Transferrin: 20–22 mg/kg with 80% of this Fe being transported to the bone marrow by hepatocytes

Bacteria can target Tf as a source of iron: Fe \leftrightarrow FbpA

Transferrin:
Iron release by receptor-bound transferin using spectroelectrochemistry

Iron Paradox:
Iron is toxic and can produce reactive oxygen species & can be correlated to cellular damage.

FERRIC BINDING PROTEIN:
Role of a synergistic anion on modulating iron uptake in a bacterial transferrin by pathogenic bacteria: A study in kinetics and thermodynamics

Proteins act as the 1st & 2nd coordination shell of iron and can modulate the kinetics and thermodynamics of reaction.

Hemoglobin:
Proteins of subunit cross-linking on hemoglobin oxidation states determined by spectrophotometry

Labeled Tf: Tf requires a specific ligand light chain which may play a role in ease and rate of iron binding.

1. FbpA-X acts as an anion binding protein apo-FbpA-X \rightarrow apo-FbpA-X

2. FbpA-X can exchange anions
$$\text{Fe}^{3+}\text{FbpA-X} \leftrightarrow \text{Fe}^{3+}\text{FbpA-Y} + \text{X}^{-}$$

3. Anion identity modulates both thermodynamic stability and redox potential
$$\text{Fe}^{3+}\text{FbpA-X} \rightarrow \text{Fe}^{3+}\text{FbpA-X}'$$

$$\text{Fe}^{3+}\text{FbpA-X}' \rightarrow \text{Fe}^{3+}\text{FbpA-X}$$

Redox potentials values by ~ 140 mV
Redox potential values by ~ 140 mV

Iron transport can occur by a redox or non-redox mechanism in the periplasm. The thermodynamic stabilities of the redox forms bind both better than the non-redox forms in the periplasm.

Implications:
• Redox process changes value by magnitude (14 kJ) based on identity of X.
• Implications

Modified Hb Conclusions:
Oxygen Transport Properties
Oxygen Binding Curves
Oxygen Affinity
Loss of cooperativity
Lower oxygen affinity
Decreased stability
• Increased oxygenation not thermodynamic
• Redox changes perturb kinetics by altering exposure of heme group

Heymann, Weaver, Matthes and Crumbless. (2006). Iron, Ceruloplasmin, and Transferrin in Human Diseases. *Progress Biochem Biophys*, 44, 956-958. Heymann, Weaver, Matthes and Crumbless. (2004). Iron, Ceruloplasmin, and Transferrin in Human Diseases. *Progress Biochem Biophys*, 43, 1527-1542. Dhungare, Talay, Anderson, Vaughan, Weaver, Matthes and Crumbless. (2004). *Biotech*, 41, 255-264. Dhungare, Talay, Zek, Lampe, Comtois and Weaver. (2004). *Biotech*, 41, 255-264. Dhungare, Talay, Anderson, Vaughan, Weaver, Matthes and Crumbless. (2004). *PNAS* 101, 3659-3664. Dhungare, Talay, Anderson, Vaughan, Weaver, Matthes and Crumbless. (2004). *PNAS* 101, 2797-2815. Dhungare, Hernandez, Weaver, Heymann, Henrich, Franck, Asean and Crumbless. (2006). unpublished. Hernandez, Heymann, Weaver, Henrich, Franck, Asean and Crumbless. (2006). *unpublished*. Hernandez, Heymann, Weaver, Henrich, Franck, Asean and Crumbless. (2006). *unpublished*. Hernandez, Heymann, Weaver, Henrich, Franck, Asean and Crumbless. (2006). *unpublished*.

ICTS KU LEUVEN

40

19

Carrier Bus for the Translife Mars Gravity Biosatellite

Introduction

The Translife Mars Gravity Biosatellite began with a proposal from the University of Washington to send a small satellite to Mars to study the effects of Martian gravity on mice.

The University of Washington requested that the proposal be sent to the Ames Research Center. The Ames Research Center accepted the proposal and the University of Washington was given the go-ahead to build the satellite.

Now, the University of Washington team, along with students from the Massachusetts Institute of Technology and the University of Colorado, is working on the project to explore, build, test, and eventually launch mice into space to be used in the Translife Mars Gravity Biosatellite.

Engineering the Spacecraft

The engineering work the Mars Gravity Project has performed and will continue to perform is to design and build the carrier bus that will be the most complex module to have ever been built in a university lab.

The carrier bus consists of three major components (see Figure 1). The Fiscal Module, which houses the attitude and the SIS required to control the orientation of the satellite in space; the Power Module, which provides power to the satellite; and the Carrier Bus, which provides power and structural support to the other two modules.

The carrier bus has the responsibility of providing power to all systems on board as well as several other vital functions.

MEV is engineering the bus to be able to withstand the forces of launching from the rocket and the forces of reentry into the atmosphere. The University of Washington team is responsible for the satellite's primary concern of the orbital mechanics.

Providing Structural Support to the Satellite

The structure or skeleton in the Bus group that I mainly worked on is the carrier bus. My job was to provide engineering the carrier bus so as to provide the best possible support for the other two modules. It must be able to withstand the forces of launching from the harsh environment of space and launch. It must also be able to withstand the forces of reentry into the atmosphere, mass, moments of inertia, and of course, the forces of vibration.

The greatest stress placed on the carrier occurs during launch because of large vibration loads. It is important that the carrier bus is able to withstand these forces so that nothing is broken or damaged during launch. The carrier bus is also responsible for charging with providing the interface between the bus and the carrier vehicle.

Trade Study 2: Solar Panel Deployment Mechanisms

Previously, a single door hinge was finalized for the deployment of the satellite's solar panels. However, we felt it necessary to investigate other options to make sure our design was the best choice.

The main reason for this is that the door hinge was not able to deploy in full length without causing a shock. This shock could potentially damage the solar panels if they were to be deployed in such a manner. So, after many different designs were tested, we found that the best option was to use a double door hinge mechanism. This design allows the door to open in a straight line without causing any shock to the solar panels.

Figure 2 shows the different configurations of the door hinge mechanism. The different configurations are shown in the figure. The best configuration is the one where the door opens in a straight line without causing any shock to the solar panels.

Partial Gravity and Trips to Mars

Partial gravity is any gravity that is below Earth's gravity and greater than zero. Most people relate this to the concept of microgravity, about relating to the effects of partial gravity without the body, including how the body reacts to partial gravity.

Microgravity is the state of weightlessness that occurs as the effect of microgravity, about relating to the effects of partial gravity without the body, including how the body reacts to partial gravity.

Partial gravity is any gravity that is below Earth's gravity and greater than zero. Most people relate this to the concept of microgravity, about relating to the effects of partial gravity without the body, including how the body reacts to partial gravity.

Partial gravity is any gravity that is below Earth's gravity and greater than zero. Most people relate this to the concept of microgravity, about relating to the effects of partial gravity without the body, including how the body reacts to partial gravity.

QUICK FACT:
If you weighed 150 pounds on Earth, you would weigh only 57 pounds on Mars.

Partial gravity is any gravity that is below Earth's gravity and greater than zero. Most people relate this to the concept of microgravity, about relating to the effects of partial gravity without the body, including how the body reacts to partial gravity.

Partial gravity is any gravity that is below Earth's gravity and greater than zero. Most people relate this to the concept of microgravity, about relating to the effects of partial gravity without the body, including how the body reacts to partial gravity.

Partial gravity is any gravity that is below Earth's gravity and greater than zero. Most people relate this to the concept of microgravity, about relating to the effects of partial gravity without the body, including how the body reacts to partial gravity.

The Carrier Bus

An enclosed orbiter, the carrier bus provides the structural support to the craft and houses all of the essential systems that both support the fiscal module and the power module. The University of Washington engineering team is developing basic orbital mechanics and the carrier bus is responsible for working on individual systems within the bus.

The orbiter and bus brief descriptions are as follows:

- **Fiscal Module**—provides the proper amount of power to the carrier bus and regular orientation of the craft. Works closely with other systems to ensure proper functioning.
- **Communication**—provides the link between the carrier bus and the ground control center. Includes real time images of the craft as well as a regular feed of data from the craft and the ground.
- **Propulsion**—responsible for maintaining the proper position of the carrier bus.
- **Power**—provides all the power needs of the carrier bus.
- **Attitude Control**—responsible for the orientation of the craft.
- **Structure**—responsible for structurally supporting the entire craft and the components of the bus.

This short gives us the rest of the information that we need to know about the carrier bus and the partial gravity effects of partial gravity will have on the bus.

Mice In Space

The Mars Gravity Project will have a payload of transgenic mice that will be partially removed once for a duration of approximately six weeks. Some of the mice that we will use are transgenic mice that have been modified to have no gravity receptors in their bodies. These will be the first transgenic mice to be exposed to microgravity.

The mice will be used to study the effects of microgravity on the mice's behavior and the effects of microgravity on the mice's immune system. The mice will be used to study the effects of microgravity on the mice's immune system.

By exposing the mice to the effects of microgravity and other effects of space travel, we can better understand the effects of microgravity on the mice. The offspring of the transgenic mice will be used to study the effects of microgravity on the mice's immune system. The offspring of the transgenic mice will be used to study the effects of microgravity on the mice's immune system.

This short gives us the rest of the information that we need to know about the carrier bus and the partial gravity effects of partial gravity will have on the bus.

Trade Studies

Trade studies are an integral part of the overall design process. In brief studies, various options are weighed based on certain pre-determined criteria. For the Mars Gravity Project the criteria are as follows:

- Risk
- Cost
- Mass
- Power

Trade Study 1: Satellite Configurations

The design of a spacecraft is a highly iterative process. The spacecraft must constantly adapt to new requirements and constraints. Figure 3 shows the different configurations of the carrier bus that were tested. An extensive trade study was completed to determine the best configuration for the carrier bus. The best configuration was the one where the door opens in a straight line without causing any shock to the solar panels.

Future Work

The Translife Mars Gravity Biosatellite is an important project that will give us insight into the possibilities of living or working in space. The project will help us to better understand the effects of microgravity on the human body and help to further the effort to expand the horizons of mankind beyond our planet. One day, we may even live on Mars. This will be a great achievement for humanity and will be a source of pride for all of us.



41

Academische posters tips

Frank Van Puyvelde – ICTS



42

Productie

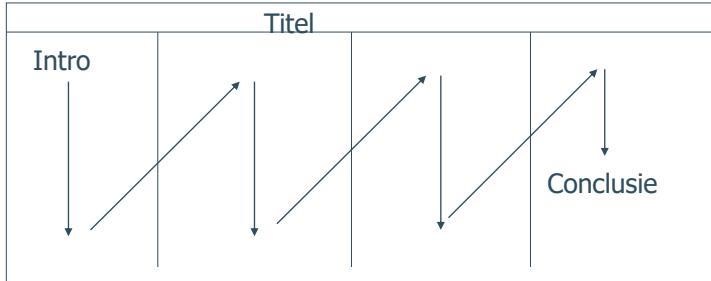
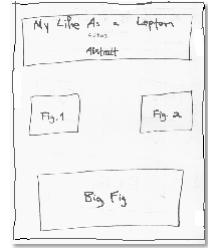
See much, Read little

Alvorens te starten

- Zorg ervoor dat alle elementen ter beschikking zijn
- Verzamel alle elementen in 1 folder (bronformaat)
 - Afbeeldingen
 - Grafieken
 - Tekst
- Layout beschikbaar op papier

Leid het oog

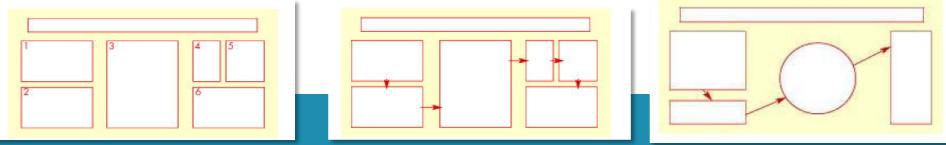
- Lees een poster zoals een krant.
- Gebruik kolom-indeling



47

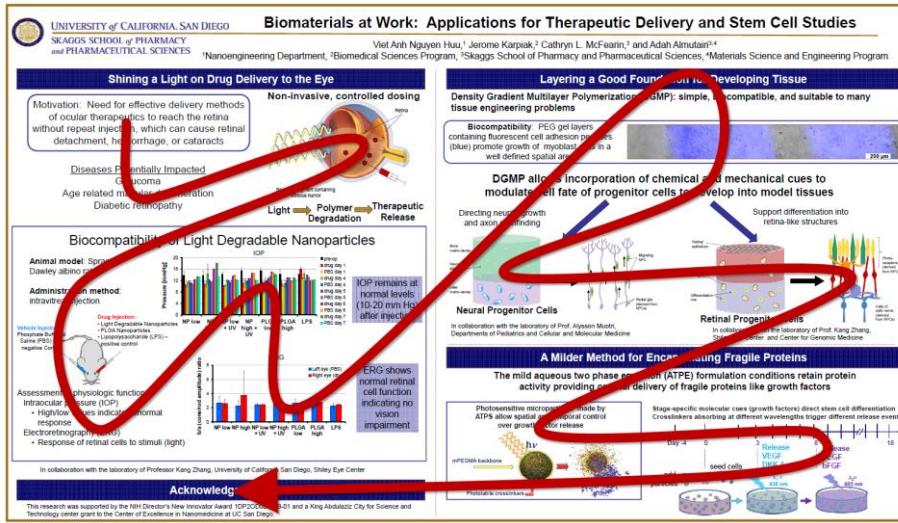
Leid het oog

- Gebruik 3 tot 5 kolommen (landschap)
1 tot 3 kolommen (portret)
- Orden de objecten logisch
- Gebruik secties / onderverdelingen
- Probeer grafieken, tabellen, afbeeldingen te gebruiken
- Nummer onderdelen indien nodig



48

Leid het oog



49

KU LEUVEN

Titel van groepsrapport

Groep X: auteur(s)

Persoonsgerichte en organisatiegerichte methoden van de criminologische interventie

Inleiding

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

Probleemdefiniëring

$$[Text] + [Text] = [Text]$$

• Etiam suscipit ex quis orat imperdere pellentesque. Nunc scelerisque congue portor.

• Nam mollis, metus quis consectetur semper, laoreet ligula dapibus, non nisi. In vestibulum ligula libero a leo. Nulla mollis dictum interdum.

Analyse van het probleem



Subtitel

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

Keuze en ontwerp oplossing

• Suspendisse sollicitudin hendrerit malesuada. Sed id est accumsan, feugiat turpis eu, dictum ante. Vivamus id maximus orci, nec efficitur augue. Sed ullamcorper, tempor ut, et tempus id, enim. Cras non posuimus, et non quis, quis parturit, moneta, nascetur ridiculus mus. Curabitur maximus rhoncus neque sit amet maximus. Praesent a neque et leo luctus viverra vitae non justus. Nullam nec risus non sem bibendum viverra. Vestibulum fin.

Subtitel

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

Subtitel

• Suspendisse sollicitudin hendrerit malesuada. Sed id est accumsan, feugiat turpis eu, dictum ante. Vivamus id maximus orci, nec efficitur augue. Sed ullamcorper, tempor ut, et tempus id, enim. Cras non posuimus, et non quis, quis parturit, moneta, nascetur ridiculus mus. Curabitur maximus rhoncus neque sit amet maximus. Praesent a neque et leo luctus viverra vitae non justus. Nullam nec risus non sem bibendum viverra. Vestibulum fin.

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

Besluit

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

Bibliografie

• Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, ut accumsan metus. Sed eu portas ut neque ultrices blandit vel eu magna. Nam a ex iaculis erat consectetur suscipit. Etiam gravida, sem ut scelerisque dignissim, ne sem.

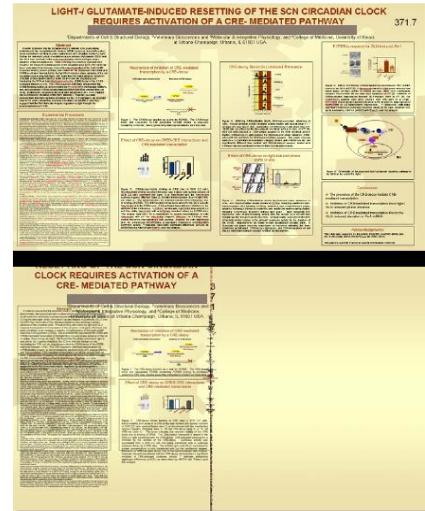


50

23

Afmetingen poster

- Stel onmiddellijk de eindafmetingen in (aanpassingen achteraf vernietigen de layout)
- Denk eraan:
 - Voorziene ruimte moet niet helemaal opgevuld worden (2 m hoge poster is niet te lezen!)
 - Maak geen grotere posters dan de voorziene ruimte
 - A0 (84*118 cm), Oversize A0 (90*125 cm) zijn meest voorkomende maten (print)
 - E-poster: rekening houden met schermverhouding / afmetingen
 - Powerpoint: beperkt tot 1.34/1.42m



ICTS



51

Afmetingen poster

- Check bij de organisatie over de beschikbare ruimte, paneel, scherm, ...



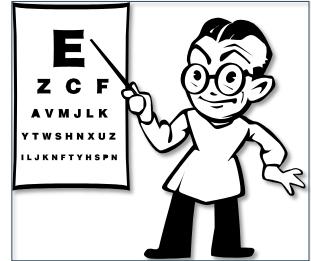
ICTS



52

Font: afmetingen (ondergrens)

- Titel: 96 pt
- Auteurs: 72 pt
- Affiliatie: 36-48 pt
- Sectie hoofding: 36 pt
- Tekst: 24 pt



- Gebruik standaard lettertypes, levert minder problemen op bij printen
- Makkelijk te lezen:
Arial, Calibri, Tahoma, Verdana

Font

- The quick brown fox jumps over the lazy dog -arial-
- The quick brown fox jumps over the lazy dog -calibri-
- The quick brown fox jumps over the lazy dog -tahoma-
- The quick brown fox jumps over the lazy dog -verdana-
- The quick brown fox jumps over the lazy dog -courier-
- The quick brown fox jumps over the lazy dog -comic-
- *The quick brown fox jumps over the lazy dog* -rivaldi-
- *The quick brown fox jumps over the lazy dog* —Bodoni MT Poster
- **The quick brown fox jumps over the lazy dog** -
rdvie-

Tekst

- Titel
 - Ideaal < 6 woorden, mag evt. in hoofdletters.
 - Gebruik nooit uitsluitend hoofdletters in tekst.



ICTS



55

Tekst

- Nadruk leggen
 - Gebruik **bold** i.p.v. onderlijnen. – niet overdrijven -
 - Werk met verschillende fontgrootte/kleur om nadruk te leggen.
 - Vermijd italics
- Alle tekst heeft uniforme afmetingen, stijl en font.
Kies 1 font (max. 3 font families)
-

geen wordart

ICTS



56

26

Tekst

- Uitlijnen
 - Uitlijnen van tekst en tekstblokken
 - Uniform: geeft een gevoel van orde
- Layout
 - 7-8 woorden per lijn tekst in een tekstblok
 - Geen lange regels, moeilijk voor de ogen om te volgen
 - Kolombreedte mag niet variëren.
 - Gebruik ruime spatiëring
 - Gebruik bullets i.p.v. onderverdeling in paragrafen

The ideal line length for text layout is based on the physiology of the human eye... At normal reading distance the arc of the visual field is only a few inches – about the width of a well-designed column of text, or about 10 words per line. Research shows that reading slows and retention rates fall as line length begins to exceed the ideal width, because the reader then needs to use the muscles of the eye and neck to track from the end of one line to the beginning of the next line. If the eye must traverse great distances on the page, the reader is easily lost and must hunt for the beginning of the next line. Quantitative studies show that moderate line lengths significantly increase the legibility of text.

The ideal line length for text layout is based on the physiology of the human eye... At normal reading distance the arc of the visual field is only a few inches - about the width of a well-designed column of text, or about 10 words per line.

Research shows that reading slows and retention rates fall as line length begins to exceed the ideal width, because the reader then needs to use the muscles of the eye and neck to track from the end of one line to the beginning of the next line.

If the eye must traverse great distances on the page, the reader is easily lost and must hunt for the beginning of the next line. Quantitative studies show that moderate line lengths significantly increase the legibility of text.

Aligneer: center

REPLACE THIS BOX
WITH YOUR
ORGANIZATION'S
HIGH RESOLUTION
LOGO

ABSTRACT

Click here to insert your Abstract text. Type it in or copy and paste from your Word document or other source. This text box will automatically re-size to fit the box.

To change the border style of this text box. Double-click on the dashed border, select "Colors and Lines", and change the border to solid or whatever style/color you like. Or "No Line" to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

CONTACT

(your name)
organization name
Email
Phone
Website:

INTRODUCTION

Click here to insert your Introduction text. Type it in or copy and paste from your Word document or other source. Click once on the dashed border to highlight then drag the bottom edge up to fit. Or change the font size to fit the box.

Double-click the border and select "Text Box", then check "Resize AutoShape to Fit Text" to have the box automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select "Colors and Lines", and change the border to solid or whatever style/color you like. Or "No Line" to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

METHODS AND MATERIALS

Click here to insert your Introduction text. Type it in or copy and paste from your Word document or other source. Click once on the dashed border to highlight then drag the bottom edge up to fit. Or change the font size to fit the box.

Double-click the border and select "Text Box", then check "Resize AutoShape to Fit Text" to have the box automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select "Colors and Lines", and change the border to solid or whatever style/color you like. Or "No Line" to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

RESULTS

DISCUSSION

Genographics has provided this template to assist in preparation of a medical or scientific research poster. The dimensions are set to 36" high by 48" wide but can also be scaled up proportionately as 54" high by 72" wide. When you order your print we will know to scale the original file to the size you specify.

For other sizes, visit us at www.genographics.com or give us a call free at 1.800.790.4001.

The various elements and text boxes included in this template are examples of what we commonly see on posters of this kind. They are simply placeholders and you should feel free to add, delete, re-arrange, re-size, or re-style as best suits your needs.

Choose Genographics to print your poster and we will perform a free design review and advise you if we see anything that may be a concern for printing.

We print directly from PowerPoint so your poster will look just like it does on screen. Other printing outlets (Kinkos, etc.) do not print directly from PowerPoint so there can be printing. This can result in elements shifting, loss of effects, or altered colors. By printing from the same version of PowerPoint that your file was created in, Genographics gives you the most accurate reproduction available.

Click here to insert your Introduction text. Type it in or copy and paste from your Word document or other source. Click once on the dashed border to highlight then drag the bottom edge up to fit. Or change the font size to fit the box.

Double-click the border and select "Text Box", then check "Resize AutoShape to Fit Text" to have the box automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select "Colors and Lines", and change the border to solid or whatever style/color you like. Or "No Line" to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

CONCLUSIONS

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

Click on the border once to highlight and select a different font or font size that suits you. This text is in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

REFERENCES

1. Click here to insert your References. Type it in or copy and paste from your Word document or other source.
2. Click on the border once to highlight and select a different font or font size that suits you. This text is in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.
3. The line spacing is set to one and a half of a line height after each entry. Select Format > Line Spacing to adjust this setting.



59

Aligneer: justify

REPLACE THIS BOX
WITH YOUR
ORGANIZATION'S
HIGH RESOLUTION
LOGO

ABSTRACT

Click here to insert your Abstract text. Type it in or copy and paste from your Word document or other source. This text box will automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select "Colors and Lines", and change the border to solid or whatever style/color you like. Or "No Line" to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

CONTACT

(your name)
organization name
Email
Phone
Website:

INTRODUCTION

Click here to insert your Introduction text. Type it in or copy and paste from your Word document or other source. Click once on the dashed border to highlight then drag the bottom edge up to fit. Or change the font size to fit the box.

Double-click the border and select "Text Box", then check "Resize AutoShape to Fit Text" to have the box automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select "Colors and Lines", and change the border to solid or whatever style/color you like. Or "No Line" to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

METHODS AND MATERIALS

Click here to insert your Introduction text. Type it in or copy and paste from your Word document or other source. Click once on the dashed border to highlight then drag the bottom edge up to fit. Or change the font size to fit the box.

Double-click the border and select "Text Box", then check "Resize AutoShape to Fit Text" to have the box automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select "Colors and Lines", and change the border to solid or whatever style/color you like. Or "No Line" to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

RESULTS

DISCUSSION

Genographics has provided this template to assist in preparation of a medical or scientific research poster. The dimensions are set to 36" high by 48" wide but can also be scaled up proportionately as 54" high by 72" wide. When you order your print we will know to scale the original file to the size you specify.

For other sizes, visit us at www.genographics.com or give us a call free at 1.800.790.4001.

The various elements and text boxes included in this template are examples of what we commonly see on posters of this kind. They are simply placeholders and you should feel free to add, delete, re-arrange, re-size, or re-style as best suits your needs.

Choose Genographics to print your poster and we will perform a free design review and advise you if we see anything that may be a concern for printing.

We print directly from PowerPoint so your poster will look just like it does on screen. Other printing outlets (Kinkos, etc.) do not print directly from PowerPoint so there can be printing. This can result in elements shifting, loss of effects, or altered colors. By printing from the same version of PowerPoint that your file was created in, Genographics gives you the most accurate reproduction available.

Click here to insert your Introduction text. Type it in or copy and paste from your Word document or other source. Click once on the dashed border to highlight then drag the bottom edge up to fit. Or change the font size to fit the box.

Double-click the border and select "Text Box", then check "Resize AutoShape to Fit Text" to have the box automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select "Colors and Lines", and change the border to solid or whatever style/color you like. Or "No Line" to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

CONCLUSIONS

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

Click on the border once to highlight and select a different font or font size that suits you. This text is in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

REFERENCES

1. Click here to insert your References. Type it in or copy and paste from your Word document or other source.
2. Click on the border once to highlight and select a different font or font size that suits you. This text is in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.
3. The line spacing is set to one and a half of a line height after each entry. Select Format > Line Spacing to adjust this setting.



60

28

Aligneer: left

REPLACE THIS BOX WITH YOUR ORGANIZATION'S HIGH RESOLUTION LOGO

TEMPLATE PROVIDED BY GENIGRAPHICS – 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

ABSTRACT

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

To change the border style of this text box. Double-click on the dashed border, select 'Colors and Lines', and change the border to solid or whatever style/color you like. Or 'No Line' to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

INTRODUCTION

Click here to insert your Introduction text. Type it in or copy and paste from your Word document or other source. Click once on the dashed border to highlight then drag the bottom edge up to fit. Or change the font size to fit the box.

Double-click the border and select 'Text Box', then check 'Resize AutoShape to Fit Text' to have the box automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select 'Colors and Lines', and change the border to solid or whatever style/color you like.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

RESULTS

Genographics has provided this template to assist in preparation of a medical or scientific research poster. The dimensions are set to 30" high by 48" wide but can also be scaled down to 24" high by 36" wide or 24" high by 72" wide. When you order your print we will know to scale the original file to the size you specify.

For more information, visit us at www.genographics.com or send an email to sales@genographics.com or give us a call toll free at 1.800.790.4001.

The various elements and text boxes included in this template are examples of what we commonly see on posters of this kind. They are simply placeholders and should be replaced with your own findings, results, name, or re-draw as best suits your needs.

Choose Genographics to print your poster and we will perform a free design review and advise you if we see anything that may be a concern for printing.

We print directly from PowerPoint so your poster will look just like the original. If you need to convert your file (for example) convert your file to another format prior to printing. This can result in elements shifting, loss of effects, and other changes. We do our best to provide a version of PowerPoint that your file was created in. Genographics gives you the most accurate reproduction available.

DISCUSSION

Click here to insert your Discussion text. Type it in or copy and paste from your Word document or other source. Click once on the dashed border to highlight then drag the bottom edge up to fit. Or change the font size to fit the box.

Double-click the border and select 'Text Box', then check 'Resize AutoShape to Fit Text' to have the box automatically re-size to your text.

To change the border style of this text box. Double-click on the dashed border, select 'Colors and Lines', and change the border to solid or whatever style/color you like. Or 'No Line' to remove the border altogether.

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 in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

CONCLUSIONS

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

Click on the border once to highlight and select a different font or font size that suits you. This text is in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.

REFERENCES

1. Click here to insert your References. Type it in or copy and paste from your Word document or other source.
 2. Click on the border once to highlight and select a different font or font size that suits you. This text is in Arial 32pt and is easily readable up to 6 feet away. Try to stay between 28pt – 40pt for best viewing.
 3. The spacing is set to add one-half of a line height after each entry. Select Format, Line Spacing, to adjust this setting.

CONTACT

Your name:
Organization name:
Email:
Phone:
Website:

Print Design © 2004 by Genographics Inc. All rights reserved.




61

Grafieken

- Kies de juiste voorstelling
- Nuttige info:
 - www.juiceanalytics.com/writing/chart-selection-art-and-science/
 - Andrew Abela:
extremepresentation.typepad.com/blog/2006/09/choosing_a_good.html

Chart Chooser Data templates for the picking.

Welcome to the Chart Chooser
Use the filters to find the right chart type for your data. You can also search for chart types by name in the search bar. Once you've found a chart type you like, click on it to view its details and then click the 'Get Template' button to download it to your computer.

37 charts selected

Comparison
Distribution
Composition
Trend
Relationship
Table



Chart Suggestions—A Thought-Starter

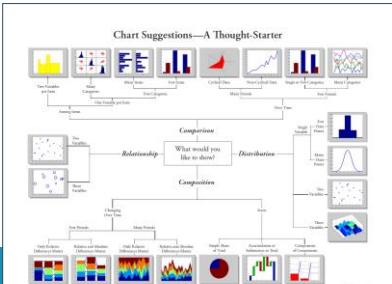
Chart Suggestions—A Thought-Starter

Relationship

Composition

Comparison

What would you like to show?

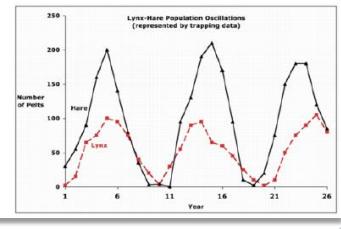
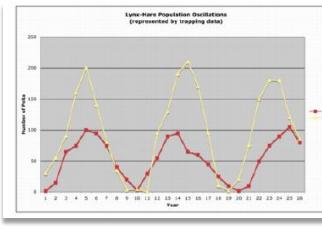
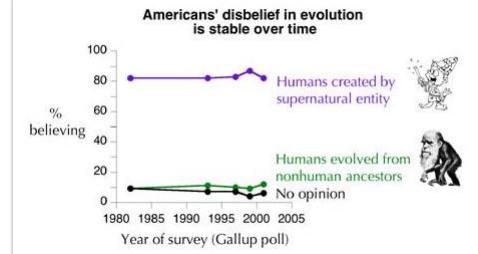




62

Grafiek

- Achtergrond brengt niets bij
- Legende niet nodig, plaats info onmiddellijk bij de curve
- Gridlijnen onnodig
- Y-label horizontaal
- Moet duidelijk zijn vanop 2m



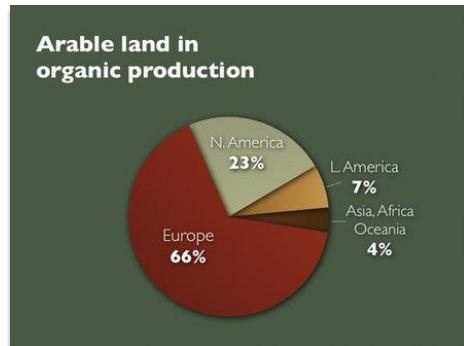
ICTS



63

Grafiek

- Vermijd 3D-grafieken indien mogelijk



http://www.presentationzen.com/presentationzen/2007/03/a_few_weeks_ago.html

ICTS



64

Afbeeldingen: auteursrecht

Geavanceerd zoeken naar afbeeldingen

Albeelden vinden met...

Dit in het zoekvak doen.

al deze woorden:

Typ de belangrijke woorden: winter rijp

dit exacte woord of deze exacte woordgroep:

Zet exacte woorden tussen aanhalingstekens: "rijp winter"

een of meer van deze woorden:

Typ OR tussen alle woorden die u niet wilt weergeven: boven OR ontkuid OR grassen

geen van deze woorden:

Zet een minus teken voor woorden die u niet wilt weergeven: -wintervak

Verfinen vervolgens uw zoekresultaten op...

afbeeldingsformaat: Albeelden zoeken in elk gewenst formaat.

beeld-verhouding: Geef de vorm van afbeeldingen aan.

kleuren in afbeelding: elke kleur full colour zwart-wit transparant deze kleur Zoek afbeeldingen in de gegeven kleuren.

type afbeelding: Beperk het type afbeeldingen dat kan worden gevonden.

regio: Zoek afbeeldingen die in een bepaalde regio zijn gepubliceerd.

site of domein: Zoek een site (zoals .fr, .nl, .org) of beperk uw resultaten tot een domein, zoals .edu, .org of .gov

SafeSearch: Aangeven of SafeSearch zoek resultaten expliciete inhoud moet filteren.

bestands-type: Zoek afbeeldingen met de gewenste indeling.

gebruiksrechten: Zoek afbeeldingen die u onbeperkt ophale kunt gebruiken.



65

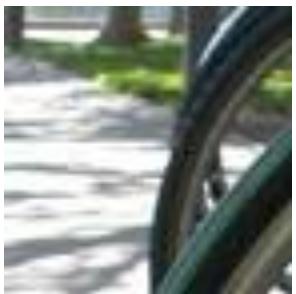
Afbeeldingen

- Zorg voor de juiste resolutie
 - Geen afbeeldingen van het web
 - te lage resolutie
 - Copyright (bv. Zoek op flickr.com - Only search within **Creative Commons**-licensed content)
 - Geen overkill aan resolutie (scannen, digitale foto's) 300 dpi volstaat (kan tot 600 dpi)
 - Vermijd clip-art
 - Bewerk foto's buiten powerpoint met geschikte software(photoshop, gimp, pixlr.com, ..)
- Afmetingen
 - Opgepast vervormingen (lock aspect ratio)
 - Bekijk poster op ware grootte (100%)
- Gebruik juiste type (tiff, jpeg, png)

66

Afbeeldingen

72 ppi
1 inch square



150 ppi
1 inch square



300 ppi
1 inch square



Valerie Griffith (ucdavis – powerup with powerpoint)

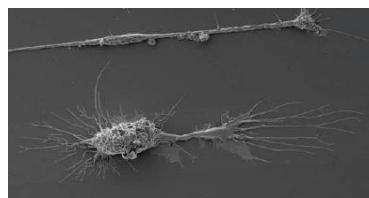
ICTS



67

Afbeeldingen

- Niet vergeten:
 - Legende
 - Schaal
- Foto's met fijne rand scoren beter



ICTS



68

Kleur

- Gebruik 1 achtergrond kleur
 - Bleek is best
 - Vermijd de standaard ppt-achtergrond met textures
 - Donkere achtergrondkleuren gebruiken veel inkt (krullen van papier)
- Beperk kleurenpalet; geen kleurboek
- Gebruik kleuren consistent

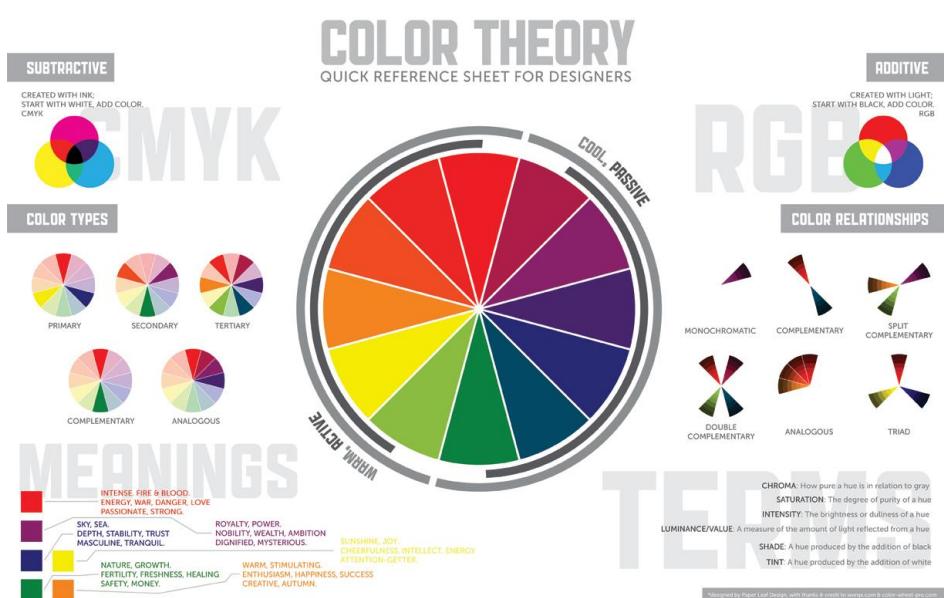
“Color should be used in the same way that type size is used: to emphasize importance, not decorate a page.”

— Alexander White

ICTS



69



http://www.paper-leaf.com/blog/wp-content/uploads/2010/01/ColorTheory_Screen_White.jpg

ICTS

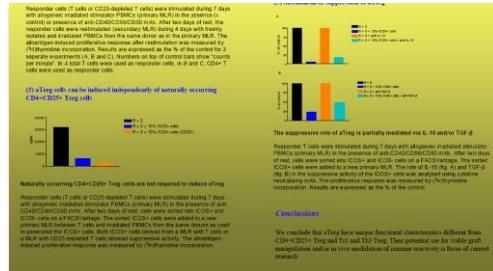


70

Kleur: gradiënt, transparantie

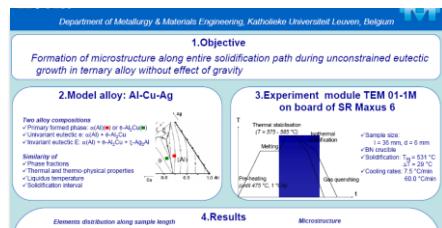
Gradiënt

- Met mate te gebruiken
- Print kan tegenvallen (bandvorming)



Transparantie

- Wordt niet altijd goed uitgeprint

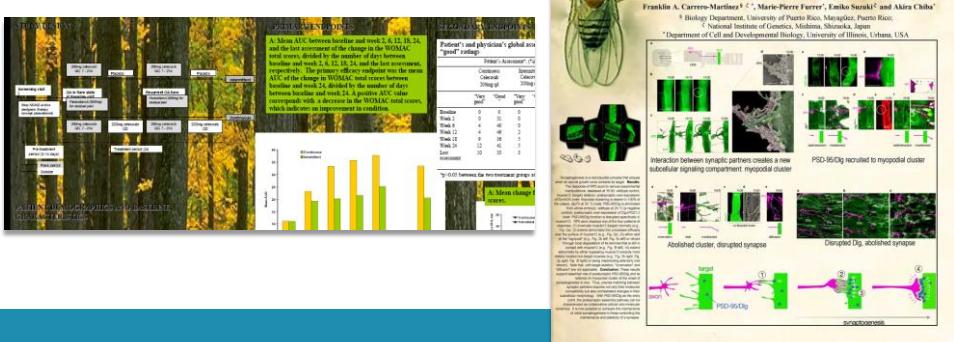


ICTS KU LEUVEN

71

Kleur: achtergrondfiguur

- Valt meestal tegen
- Wordt niet altijd goed uitgeprint (probleem transparantie)

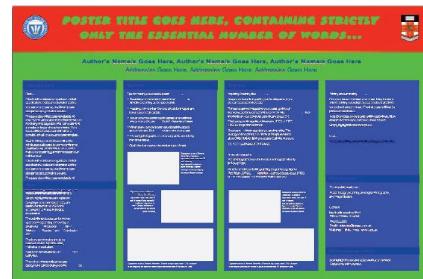


ICTS KU LEUVEN

72

Contrast

- Opgepast met vermoeiende contrasten
- Oppassen met tekstschaduw
- Tekstblokken op witte of bleke achtergrond
- Vermijd bleke letters op donkere achtergrond (kan evt. wel voor titel)
- Hoe rekening met kleurenblindheid vermijd rood/groen combinaties



<http://www.vischeck.com/vischeck/vischeckImage.php>

Academische posters powerpoint



Productie

<https://skills.it.ox.ac.uk/posters-improving-your-research-posters-course-pack>

ICTS



77

Noot voor technofoben

- Knip-en-plak werk: afzonderlijke A4's uitprinten en hiervan een collage maken
 - Nuttig bij opbouw van de poster
 - Snel, eenvoudig
 - Niet altijd geslaagd
 - Noodrancsoen



ICTS



78

Noot voor technofoben

- Gebruik geen WORD!
 - Werkt enkel voor A4-formaat, opblazen naar A0-formaat is vaak teleurstellend
 - Vereist goochelwerk om op groter formaat te krijgen
- Bestaande PowerPoint presentatie omvormen tot een poster
 - Garantie voor een slecht resultaat



79

PowerPoint?!

Plus

- Lage drempel
- Beschikbaar
- Eenvoudig
- Ingepast in Office-suite
- Templates (sjabloon) ter beschikking

Min

- Voor presentaties, niet voor posters
- Printen kan soms voor een probleem zorgen
- Illustrator, Corel Draw, ... zijn krachtiger, maar grotere drempel (gebruik + beschikbaarheid)

KU LEUVEN

Titel van groepsrapport

Groep X: auteur(s)

Persoonsgerichte en organisatiegerichte methoden van de criminologische interventie

Inleiding

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin et augue lacrime, feugiat velit, sagittis est. Aliquam convallis viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eget portitor. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scilicet elementum dignissim, quam nec luctus ipsum. Aliquam facilis nisi et aliquam magna cursus tempor.

- Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, eu sodales enim.
- Cras ornare gravida odio, at efficitur toror incidentum sed. Ut eu purus ut neque ultrices blandit vel eu magna. Nam a ex luctus viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eget portitor. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scilicet elementum dignissim, quam nec luctus ipsum. Aliquam facilis nisi et aliquam magna cursus tempor.
- Suspendisse eu vehicula ipsum, sit amet sodales tellus. Phasellus vel odio commodo, suscipit maus sit amet, porta nulla. Mauris luctus finibus sapien, vel egestas urna tempus egest.

Probleemdefiniëring

[Text] + [Text] = [Text]

Subtitel

Fusce semper libero vel justo consequat, vel accumsan odio lacrima. Aenean id sollicitudin nibh, east varius libero. Aenean fermentum cursus ultricies. Sed accumsan risus eu facilisis ultricies. Etiam suscipit ex quis erat imperdiet pellentesque. Nunc accersit ultricies congue portitor.

- Nam molestie, massa quis consequat tempore, lacinia ligula dapibus mauris, in vestibulum justo libero a tellis. Nullam mollis dictum intentum.

Analyse van het probleem

Subtitel

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin et augue lacrime, feugiat velit, sagittis est. Aliquam convallis viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eget portitor. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scilicet elementum dignissim, quam nec luctus ipsum. Aliquam facilis nisi et aliquam magna cursus tempor.

- Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, eu sodales enim. Aenean consecetur sed ante eu venenatis. Proin sed magna dui diam porta bibendum. Curabitur nec elit nulla. Cras ornare gravida odio, at efficietur toror incidentum sed.
- Ut eu purus ut neque ultrices blandit vel eu magna. Nam a ex luctus viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eget portitor. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scilicet elementum dignissim, quam nec luctus ipsum. Aliquam facilis nisi et aliquam magna cursus tempor.
- Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, eu sodales enim. Aenean consecetur sed ante eu venenatis. Proin sed magna dui diam porta bibendum. Curabitur nec elit nulla. Cras ornare gravida odio, at efficietur toror incidentum sed.
- Ut eu purus ut neque ultrices blandit vel eu magna. Nam a ex luctus viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eget portitor. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scilicet elementum dignissim, quam nec luctus ipsum. Aliquam facilis nisi et aliquam magna cursus tempor.

Keuze en ontwerp oplossing

Suspendisse sollicitudin hendrerit malesuada. Sed id est accumsan, feugiat turpis eu dictum ante. Vivamus id maximus orci, nec efficietur augue. Sed ullamcorper ullamcorper velit, eget ornare ligula aliquam ut. Orci varius natoque penatibus et magnis dis parturunt montes, nascetur ridiculus mus. Curabitur maximus rhoncus neque, non varius nisi. Curabitur et ligula viverra vivie non justa. Nullam nec risus non sem bibendum vivore. Vestibulum fin.

Subtitel

Suspendisse sollicitudin hendrerit malesuada. Sed id est accumsan, feugiat turpis eu dictum ante. Vivamus id maximus orci, nec efficietur augue. Sed ullamcorper ullamcorper velit, eget ornare ligula aliquam ut. Orci varius natoque penatibus et magnis dis parturunt montes, nascetur ridiculus mus. Curabitur maximus rhoncus neque, non varius nisi. Curabitur et ligula viverra vivie non justa. Nullam nec risus non sem bibendum vivore. Vestibulum fin.

Besluit

- Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, eu sodales enim. Aenean consecetur sed ante eu venenatis. Proin sed magna dui diam porta bibendum. Curabitur nec elit nulla. Cras ornare gravida odio, at efficietur toror incidentum sed.
- Ut eu purus ut neque ultrices blandit vel eu magna. Nam a ex luctus viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eget portitor. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scilicet elementum dignissim, quam nec luctus ipsum. Aliquam facilis nisi et aliquam magna cursus tempor.
- Curabitur et velit nibh. Fusce et accumsan metus. Ut sit amet elementum magna, eu sodales enim. Aenean consecetur sed ante eu venenatis. Proin sed magna dui diam porta bibendum. Curabitur nec elit nulla. Cras ornare gravida odio, at efficietur toror incidentum sed.
- Ut eu purus ut neque ultrices blandit vel eu magna. Nam a ex luctus viverra ipsum sagittis ultricies. Nullam porta quam eu venenatis vestibulum. Duis semper finibus neque eget portitor. Aliquam tristique metus eu mi ullamcorper faucibus. Duis sit amet justo scilicet elementum dignissim, quam nec luctus ipsum. Aliquam facilis nisi et aliquam magna cursus tempor.

Bibliografie

Suspendisse sollicitudin hendrerit malesuada. Sed id est accumsan, feugiat turpis eu dictum ante. Vivamus id maximus orci, nec efficietur augue. Sed ullamcorper ullamcorper velit, eget ornare ligula aliquam ut. Orci varius natoque penatibus et magnis dis parturunt montes, nascetur ridiculus mus. Curabitur maximus rhoncus neque, non varius nisi. Curabitur et ligula viverra vivie non justa. Nullam nec risus non sem bibendum vivore. Vestibulum fin.

81

Pagina grootte

- Stel onmiddellijk de finale afmetingen in
- Portrait / landscape
- **Design > Slide Size**
- **Ontwerpen > Pagina-instelling**

DESIGN TRANSITIONS ANIMATIONS SLIDE SHOW REVIEW VIEW DEVELOPER FORMAT

Themes

Slide Size

Slides sized for: On-screen Show (4:3)

Width: 25,4 cm
Height: 19,05 cm
Number slides from: 1

Orientation

Slides: Portrait Landscape

Notes, Handouts & Outline: Portrait Landscape

OK Cancel

Pagina-instelling

Diaformaat aanpassen aan: Aangepast

Breedte: 28,85 cm
Hoogte: 20,15 cm
Dia's nummeren vanaf:

Afdrukstand

Dia's: Staand Liggend

Notities, hand-outs, overzicht

Staand Liggend

Pagina-instelling

Diaformaat aanpassen aan: Aangepast

Breedte: 28,85 cm
Hoogte: 20,15 cm
Dia's nummeren vanaf:

Afdrukstand

Dia's: Staand Liggend

Notities, hand-outs, overzicht

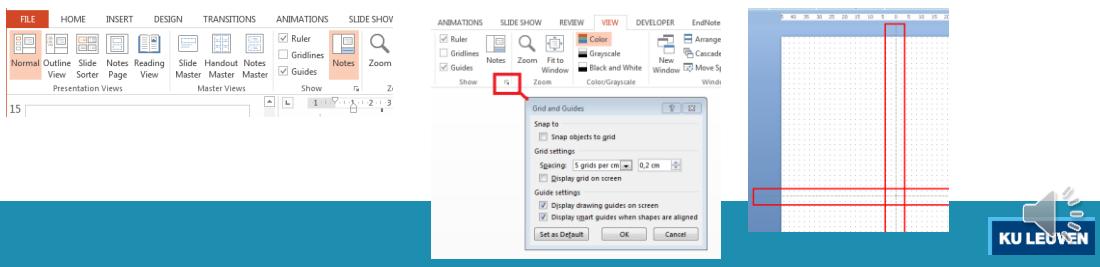
Staand Liggend

KU LEUVEN

82

Liniaal & hulplijnen

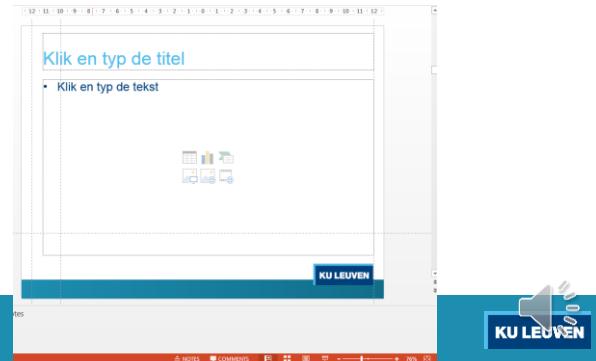
- Liniaal en hulplijnen zijn nuttig bij het plaatsen van objecten
- **Beeld > Liniaal (View > Ruler Guides)**
 - Rechts klikken op slide selecteer liniaal raster en hulplijnen
 - Verplaats de hulplijnen,
 - Maak een extra met ctrl+selecteer
 - Verwijder een hulplijn door buiten slide te verschuiven



83

Zoom

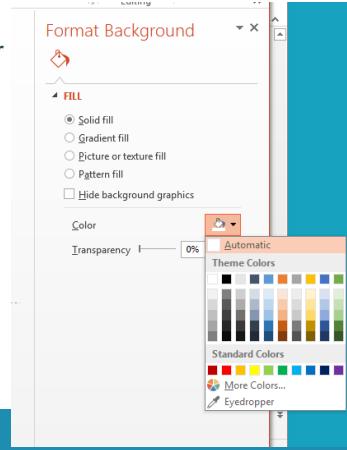
- 100%: check in detail hoe de afdruk op ware grootte zal zijn.
 - Nuttig bij afbeeldingen!
- 33%: Goed voor editeren
- Fit: overzicht van de globale layout



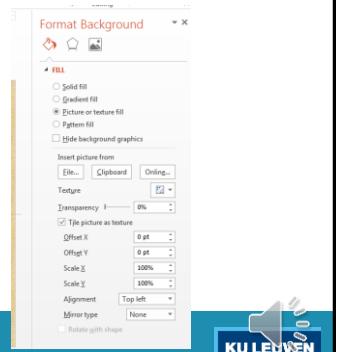
84

Instellen achtergrond

- Rechtsklik op achtergrond
- Solid fill
 - Lichte kleur



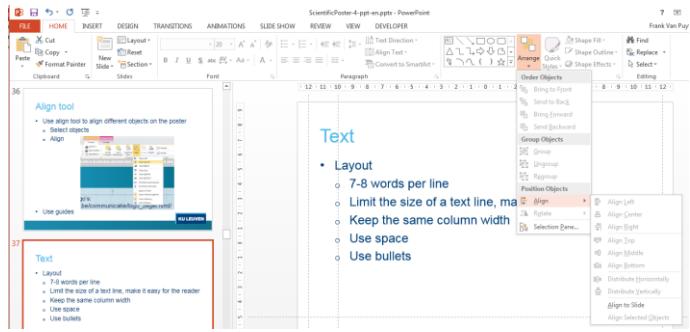
- Picture
 - Bleek houden



85

Align tool

- Gebruik Align tool om objecten te aligneren
 - Selecteer de objecten (ctrl om meerder te selecteren)
 - Align



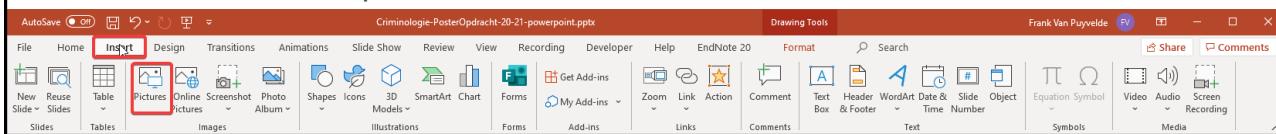
- Use guides

86

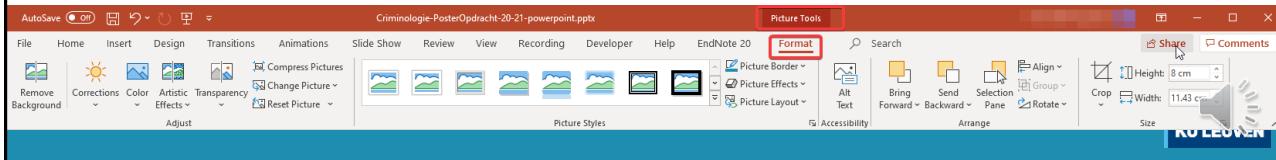
Afbeeldingen

- Invoegen:

- Gebruik 'insert picture' menu



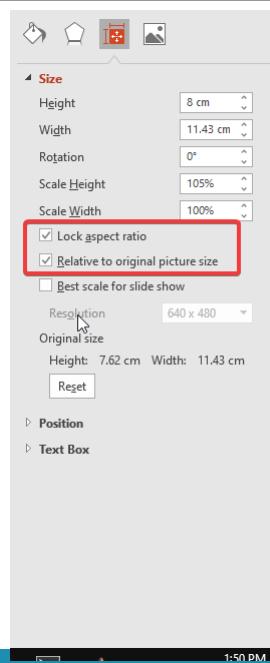
- Copy/paste gaat meestal de kwaliteit verlagen
 - Afbeeldingen kunnen nog verder bewerkt worden
Picture tools > format



87

Afbeeldingen

- Selecteer
 - Lock aspect ratio
 - Relative to original picture size



88

Grafiek

- Start van scratch
- **Insert > Chart (Invoegen > Diagram)**
 - Maak keuze
 - Vul spreadsheet in



89

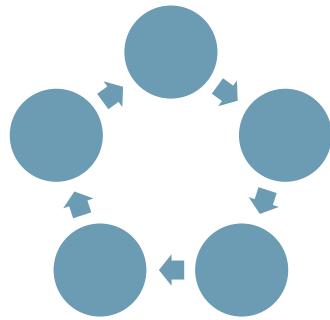
Tabel

- Insert > Table
 - Selecteer layout
- Layout / Design kan aangepast worden
 - Table Tools
- Uniform
 - zelfde font
 - Zelfde kleurenpallet
 - Vergeet bij- of onderschrift niet



90

SmartArt



ICTS



91

KU LEUVEN

Academische posters sos

Frank Van Puyvelde – ICTS



92

SOS Poster

Summarise your entire study in 3 phrases and 6 pictures.

ICTS



95

SOS Poster

Ideaal

- Verleidelijk zijn
- Creatieve communicatie van onderzoek
- Duidelijke structuur (flow) van informatie
- Figuren en grafieken i.p.v. tekst
- Persoonlijke interactie
- Handouts kunnen helpen

Vermijd

- Paperpublicatie op poster formaat
- Overdaad aan tekst
 - Wees beknopt
 - Geen onnodige details
- Overdaad aan kleur/combinaties
- Intense achtergrond

ICTS



96

Title of Poster
Author's name, Author's name, Author's name
Name of Division, Department, Institution, City, State

Introduction
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

Abstract
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

Data

Method
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

Figures

Captions of Figures

Results
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

References
Author, article, journal, page, date
Author, article, journal, page, date
Author, article, journal, page, date

Conclusion
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

Results continued
In hac habitasse platea dictumst. Ut magna odio, vestibulum sit amet, ultricies nec, convallis eget, enim. Cras a libero. Duis eros risus, vehicula a, feugiat sit amet, venenatis aliquet.

Title of Poster
Author's name, Author's name, Author's name
Name of Division, Department, Institution, City, State

Introduction
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

Abstract
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

Data

Method
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

Figures

Captions of Figures

Results
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

References
Author, article, journal, page, date
Author, article, journal, page, date
Author, article, journal, page, date

Conclusion
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

Results continued
In hac habitasse platea dictumst. Ut magna odio, vestibulum sit amet, ultricies nec, convallis eget, enim. Cras a libero. Duis eros risus, vehicula a, feugiat sit amet, venenatis aliquet.

Conclusion
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent eu est ut orci sagittis fringilla.

References
Author, article, journal, page, date
Author, article, journal, page, date
Author, article, journal, page, date

ICTS



97

A randomized controlled trial of the use of self-administered medication & exercise programme in patients with chronic low back pain
R. Mervin, M. Shaw & M. Haines
Centre for Medical Rehabilitation, Royal Free Hospital, London, UK and KCL, London, UK

Background
Patients with chronic low back pain (CLBP) experience significant functional impairment and reduced quality of life. Current evidence suggests that exercise and self-management programmes are effective in reducing pain and improving function in CLBP. However, these interventions are often delivered by health professionals, which can be costly and time-consuming.

Objectives
The aim of this study was to evaluate the effectiveness of a self-administered medication and exercise programme compared to usual care in patients with CLBP.

Design
A randomized controlled trial (RCT) design was used. Patients were recruited from a convenience sample of primary care clinics in the UK.

Interventions
The intervention group received a self-administered medication and exercise programme, which included a manual, video, and audio recordings. The control group received usual care, which included advice from a healthcare professional.

Outcomes
The primary outcome was pain intensity, measured using a visual analog scale (VAS). Secondary outcomes included functional impairment, quality of life, and patient satisfaction.

Results
A total of 120 patients were recruited and randomised. At baseline, there were no significant differences between groups in terms of age, sex, or pain intensity. At 12 weeks, the intervention group reported significantly lower pain intensity (mean VAS score 4.5 vs 6.5, p < 0.05) and improved functional impairment (mean改良Ashley量表 score 12.5 vs 14.5, p < 0.05) compared to the control group.

Conclusion
The self-administered medication and exercise programme was effective in reducing pain and improving functional impairment in patients with CLBP. This study provides evidence for the feasibility and effectiveness of self-administered interventions in this population.

SWINBURNE UNIVERSITY OF TECHNOLOGY
A randomized controlled trial of the use of self-administered medication & exercise programme in patients with chronic low back pain
R. Mervin, M. Shaw & M. Haines
Centre for Medical Rehabilitation, Royal Free Hospital, London, UK and KCL, London, UK

Background
Patients with chronic low back pain (CLBP) experience significant functional impairment and reduced quality of life. Current evidence suggests that exercise and self-management programmes are effective in reducing pain and improving function in CLBP. However, these interventions are often delivered by health professionals, which can be costly and time-consuming.

Objectives
The aim of this study was to evaluate the effectiveness of a self-administered medication and exercise programme compared to usual care in patients with CLBP.

Design
A randomized controlled trial (RCT) design was used. Patients were recruited from a convenience sample of primary care clinics in the UK.

Interventions
The intervention group received a self-administered medication and exercise programme, which included a manual, video, and audio recordings. The control group received usual care, which included advice from a healthcare professional.

Outcomes
The primary outcome was pain intensity, measured using a visual analog scale (VAS). Secondary outcomes included functional impairment, quality of life, and patient satisfaction.

Results
A total of 120 patients were recruited and randomised. At baseline, there were no significant differences between groups in terms of age, sex, or pain intensity. At 12 weeks, the intervention group reported significantly lower pain intensity (mean VAS score 4.5 vs 6.5, p < 0.05) and improved functional impairment (mean改良Ashley量表 score 12.5 vs 14.5, p < 0.05) compared to the control group.

Conclusion
The self-administered medication and exercise programme was effective in reducing pain and improving functional impairment in patients with CLBP. This study provides evidence for the feasibility and effectiveness of self-administered interventions in this population.

- Onduidelijke titel
- Verschillende tekstboxen lijken geen geheel te vormen
- Contrast tussen witte tekstbox en achtergrond te groot
- Linkse deel: teveel tekst
- Duidelijke titel
- Grote tekstbox vormt een geheel
- Beelden gealigneerd
- Lichte kleuren zijn minder belastend voor de ogen
- Balans door de beelden te verdelen

<http://www.fes.uwaterloo.ca/computing/help/posterdesign/PosterCreation.pdf>

ICTS



98

Voorbeelden (CCMR Cornell Center for Materials Research)



- Trop is Teveel
- Vermoeiend

- Contrast
- Geheel met verschillende achtergronden?



ICTS



99

Tekst: spelling check

- Selecteer alle tekst
 - View > Outline
 - Ctrl-a om alle tekst te selecteren
 - Set proofing language
- Check spelling
 - Review tab, Proofing group, click Spelling.
 - Shortcut: F7



100