



LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN

Collaboration Scripts for CSCL

Frank Fischer, Ingo Kollar, Christof Wecker





LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN

Introduction

www.kloster-seeon.de





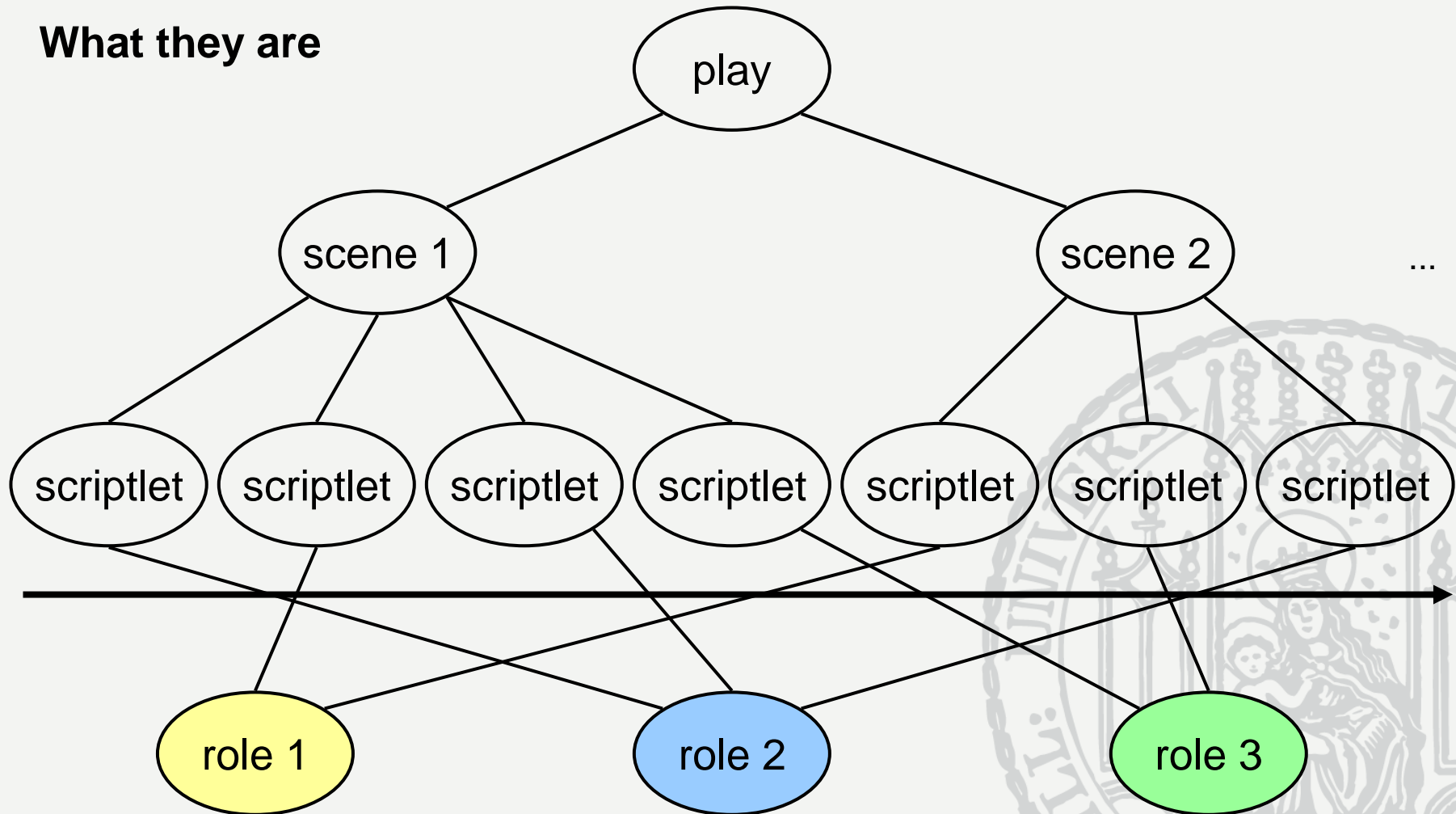
LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN

Outline

1. Internal collaboration scripts
2. External collaboration scripts



What they are



Your task

- **Discuss/reflect how an internal collaboration script for a webinar could be measured in a valid way!**

Please consider the following issues:

- How can the „act“-part of internal scripts be measured?
 - How can the „understand“-part of internal scripts be measured?
 - How could you deal with the flexible character of internal scripts?
- You have 15 minutes for this!

Project on measuring internal ward round scripts



(Beltermann, Wessels, Kollar & Fischer, subm.)

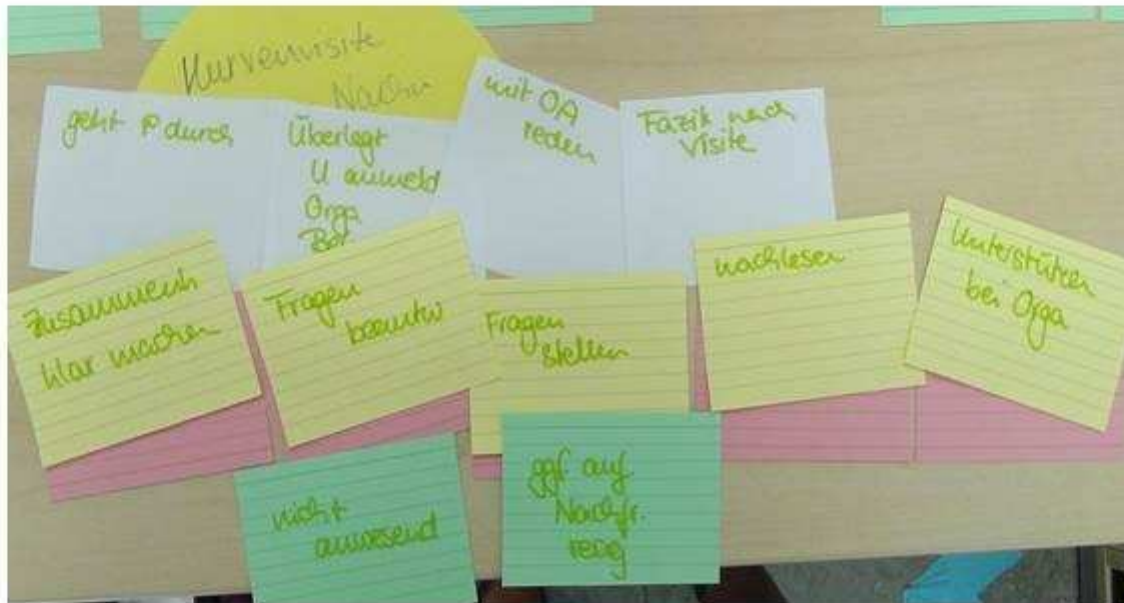


Project on measuring internal ward round scripts

- Ward rounds as social („collaborative“) situation
- Possible participants (roles): senior physician, ward physician, junior physician, students in their practical year, nurse, medical student, patient
- Measuring internal scripts as a two-step process:
 - Observing ward rounds with a simulated patient
 - Running interviews with participants, based on Structure-Formation Technique (Groeben & Scheele, 1988)
- Analysis: Identification of scenes and scriptlets (specific for each role) via ...
 - Video coding (behavioral data)
 - Analysis of laid structures (interview data)

(Beltermann, Wessels, Kollar & Fischer, subm.)





Project on measuring internal ward round scripts

- Data analysis is on-going, right now the interview data are analyzed
- Preliminary results:
 - Ward physicians mention significantly more scenes than medical students
 - Medical students and doctors at higher levels of expertise mentioned more scriptlets than doctors at intermediate levels of expertise
- Currently: Identification of the **types** of scenes and scriptlets
- Expected differences between medical students on the one hand and medical professionals on the other will inform the design of an intervention directed at increasing medical students' competencies necessary for running ward rounds successfully

(Beltermann, Wessels, Kollar & Fischer, subm.)

1. Internal collaboration scripts
2. External collaboration scripts
 - What they are
 - How they affect CSCL practices and learning
 - Why some people are afraid of „over-scripting“



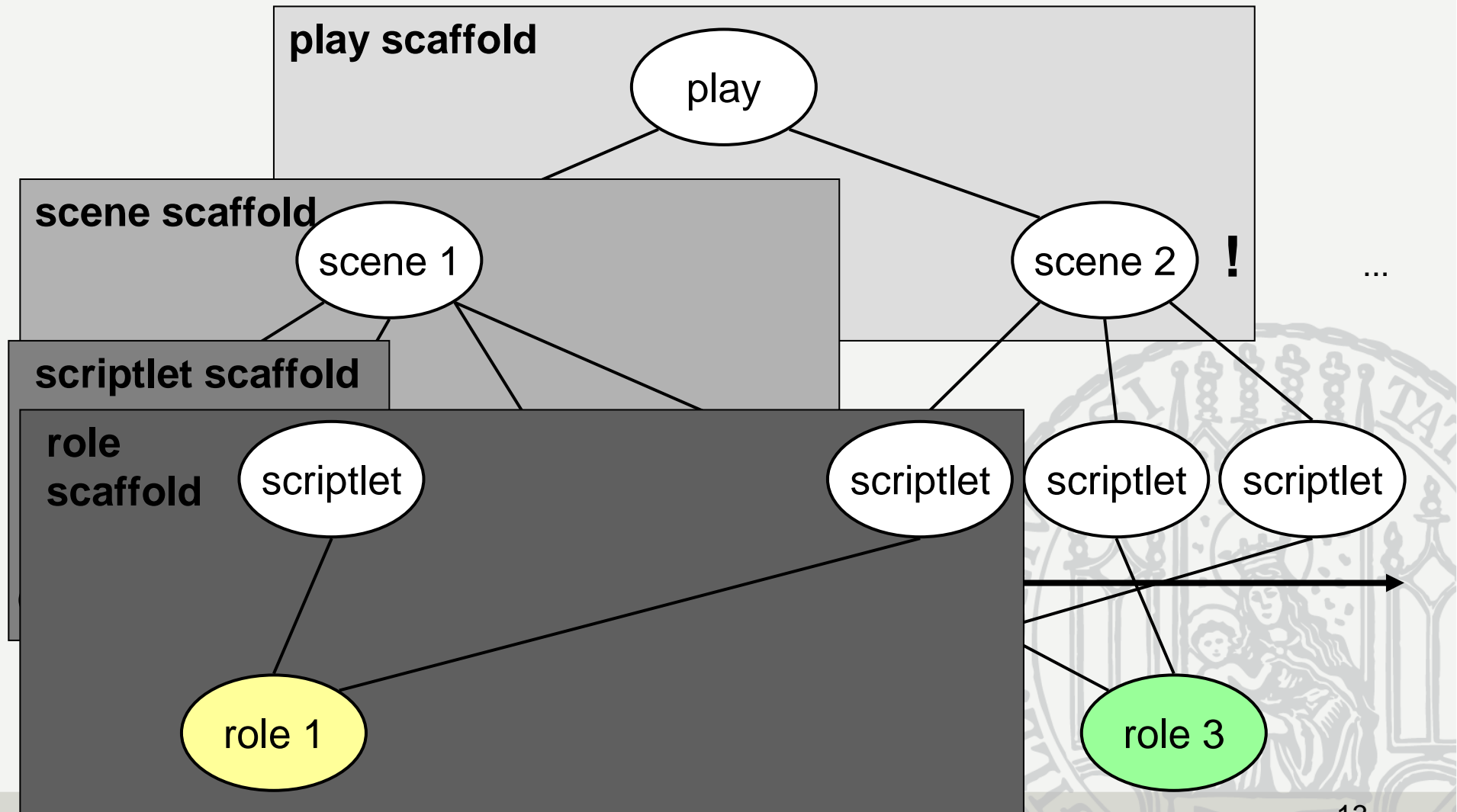
What they are

Interaction-related scaffolds that specify, sequence and distribute activities and/or roles among the learners of a small group

(Kollar, Fischer & Hesse, 2006)

External collaboration scripts are representations that may guide CSCL practices by either facilitating or inhibiting the application of internal collaboration script components of the participating individuals.

(Fischer, Kollar, Stegmann & Wecker, 2013, p. 61)



genetic engineering - Google Search - Mozilla Firefox

File Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://www.google.de/search?hl=en&q=genetic+engineering&btnG=Google+Search

Web Images Maps News Shopping Mail more

Sign in

Evaluation of the results page

Google genetic engineering Search Advanced Search Preferences

Web Results 1 - 10 of about 14,700,000 for genetic engineering [definition]. (0.30 seconds)

Genetic engineering - Wikipedia, the free encyclopedia
Genetic engineering, recombinant DNA technology, **genetic** modification/manipulation (GM) and gene splicing are terms that apply to the direct manipulation of ...
 en.wikipedia.org/wiki/Genetic_engineering - 55k - Cached - Similar pages

Human genetic engineering - Wikipedia, the free encyclopedia
 26 Mar 2008 ... Human **genetic engineering** is the alteration or change in the DNA of humans by modifying the genotype of the unborn individual to control ...
 en.wikipedia.org/wiki/Human_genetic_engineering - 47k - Cached - Similar pages
 More results from en.wikipedia.org »

Say no to genetic engineering | Greenpeace International
Genetic engineering enables scientists to create plants, animals and micro-organisms by manipulating genes in a way that does not occur naturally ...
 www.greenpeace.org/international/campaigns/genetic-engineering - 60k - Cached - Similar pages

Genetic Engineering & Biotechnology News - Biotechnology from ...
Genetic Engineering & Biotechnology News - Biotechnology from Bench to Business. The Leading Publication in Biotechnology. **Genetic Engineering News** is the ...
 www.genengnews.com/ - 61k - Cached - Similar pages

Genetic Engineering and Its Dangers
 Essays, links to resources and a bibliography compiled by Dr Ron Epstein at the Philosophy Department. Categories include ethical and religious questions, ...
 online.sfsu.edu/~rone/GEessays/genanger.htm - 46k - Cached - Similar pages

What is Genetic Engineering?
 Scientists identified a particular gene which enables a flounder to resist cold and used the technology of **genetic engineering** to insert this "anti-freeze" ...
 www.ssf-food.org/~issue/eg.html - 6k - Cached - Similar pages

GENETIC ENGINEERING HOME PAGE
 15 May 2001 ... This page is a home page to introduce you to SRT's series of pages on various aspects of **genetic engineering** and cloning and the ethical ...
 www.srtf.org.uk/geneng0.shtml - 23k - Cached - Similar pages

GMO - Genetic Engineering - CAMPAIGN TO BAN GENETICALLY ENGINEERED ...
 Articles and links in multiple languages concerning genetically engineered foods.
 www.netlink.de/gen/ - 24k - Cached - Similar pages

Explore More: Genetic Engineering
 Explore More: **Genetic Engineering** tells you the story, gives you the facts, and then takes a closer look to help you unravel the core issues. ...
 www.ipiv.org/exploremore/gen/ - 29k - Cached - Similar pages

Genetic Engineering: What is Genetic Engineering? | Globalchange ...
Genetic engineering is the alteration of **genetic** code by artificial means, ... **Genetic engineering** examples include taking the gene that programs poison in ...
 www.globalchange.com/geneticengn.htm - 41k - Cached - Similar pages

Searches related to: **genetic engineering**

advantages of genetic engineering human genetic engineering genetic engineering history genetic engineering definition
 genetic engineering animation genetic engineering dangers cloning biotechnology

Sponsored Links

Cell Line Engineering
 Sigma-Aldrich Introduces CompoZr Zinc Finger Nuclease Technology
 www.edforthebetter.com

Recombining
 Kits, Licenses & Services
 By patented Red/ET Recombination
 www.genebridges.com

Engineering education
 Learn more, Teach more, Do more
Engineering Education for 2020
 www.nae.edu/casee

Custom Transgenic Mice
 Reliable delivery, fast timelines, scientific expertise for models
 www.taconic.com/atenis

Gene Synthesis by GENEART
 gene synthesis from 0.49/bp - buy now at our best rate ever!
 www.geneart.com

Genetic Research Projects
 Discover your Personal **Genetic** History. Buy Geographic Kit!
 NationalGeographic.com/Genographic/

Vital Signs
 A global look at the world of health. Monthly, only on CNN.
 cnn.com/vitalsigns

Synthetic Genes
 and other doublestranded DNA constructs by de novo DNA-synthesis
 www.ig-biosynthetics.com

Fertig

Start 2 Windows ... 3 Novel Gr ... 7 Microsoft ... 2 Microsoft ... 12 Internet ... technological ... genetic engn ... Google 14:40

genetic engineering - Google Search - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://www.google.de/search?q=genetic+engineering&btnG=Google+Search

Web Images Maps News Shopping Mail more

Sign in

Evaluation of the results page

1 Reminding yourself of the required information:

2 Commenting on the suggested link:

3 Learning partner goes to the selected page:

Google genetic engineering Search Advanced Search Preferences

Web Results 1 - 10 of about 14,700,000 for genetic engineering [definition]. (0.30 seconds)

Sponsored Links

Cell Line Engineering
Sigma-Aldrich Introduces CompoZr Zinc Finger Nuclease Technology
www.edforthebetter.com

Recombining
Kits, Licenses & Services
By patented Red/ET Recombination
www.genebridges.com

Engineering education
Learn more. Teach more. Do more
Engineering Education for 2020
www.nae.edu/casee

Custom Transgenic Mice
Reliable delivery, fast timelines, scientific expertise for models
www.taconic.com/atenis

Gene Synthesis by GENEART
gene synthesis from 0.49/bp - buy now at our best rate ever!
www.geneart.com

Genetic Research Projects
Discover your Personal Genetic History. Buy Geographic Kit!
NationalGeographic.com/Genographic/

Vital Signs
A global look at the world of health. Monthly, only on CNN.
cnn.com/vitalsigns

Synthetic Genes
and other doublestranded DNA constructs by de novo DNA-synthesis
www.ig-biosynthetics.com

Genetic engineering - Wikipedia, the free encyclopedia
Genetic engineering, recombinant DNA technology, genetic modification/manipulation (GM) and gene splicing are terms that apply to the direct manipulation of ...
en.wikipedia.org/wiki/Genetic_engineering - 55k - Cached - Similar pages

Human genetic engineering - Wikipedia, the free encyclopedia
26 Mar 2008 ... Human genetic engineering is the alteration or change in the DNA of humans by modifying the genotype of the unborn individual to control ...
en.wikipedia.org/wiki/Human_genetic_engineering - 47k - Cached - Similar pages
More results from en.wikipedia.org »

Say no to genetic engineering | Greenpeace International
Genetic engineering enables scientists to create plants, animals and micro-organisms by manipulating genes in a way that does not occur naturally ...
www.greenpeace.org/international/campaigns/genetic-engineering - 60k - Cached - Similar pages

Genetic Engineering & Biotechnology News - Biotechnology from ...
Genetic Engineering & Biotechnology News - Biotechnology from Bench to Business. The Leading Publication in Biotechnology. Genetic Engineering News is the ...
www.genengnews.com/ - 51k - Cached - Similar pages

Genetic Engineering and Its Dangers
Essays, links to resources and a bibliography compiled by Dr Ron Epstein at the Philosophy Department. Categories include ethical and religious questions, ...
online.sfsu.edu/~rone/GEessays/genanger.htm - 46k - Cached - Similar pages

What is Genetic Engineering?
Scientists identified a particular gene which enables a flounder to resist cold and used the technology of genetic engineering to insert this "anti-freeze" ...
www.ssf-food.org/~issue/ige.html - 6k - Cached - Similar pages

GENETIC ENGINEERING HOME PAGE
15 May 2001 ... This page is a home page to introduce you to SRT's series of pages on various aspects of genetic engineering and cloning and the ethical ...
www.srtf.org.uk/geneng0.shtml - 23k - Cached - Similar pages

GMO - Genetic Engineering - CAMPAIGN TO BAN GENETICALLY ENGINEERED ...
Articles and links in multiple languages concerning genetically engineered foods.
www.netlink.de/gen/ - 24k - Cached - Similar pages

Explore More: Genetic Engineering
Explore More: Genetic Engineering tells you the story, gives you the facts, and then takes a closer look to help you unravel the core issues. ...
www.ipiv.org/exploremore/ge/ - 29k - Cached - Similar pages

Genetic Engineering: What is Genetic Engineering? | Globalchange ...
Genetic engineering is the alteration of genetic code by artificial means, ... Genetic engineering examples include taking the gene that programs poison in ...
www.globalchange.com/geneticengn.htm - 41k - Cached - Similar pages

Searches related to: genetic engineering

advantages of genetic engineering human genetic engineering genetic engineering history genetic engineering definition
genetic engineering animation genetic engineering dangers cloning biotechnology

Fertig

Start 2 Windows ... 3 Novel Gr ... 3 Microsoft ... 2 Microsoft ... 12 Internet ... technological ... genetic engn ... Google 14:40

genetic engineering - Google Search - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://www.google.de/search?q=genetic+engineering&btnG=Google+Search

Web Images Maps News Shopping Mail more

Sign in

Google genetic engineering Search [Advanced Search](#) [Preferences](#)

Web Results 1 - 10 of about 14,700,000 for **genetic engineering** [definition]. (0.30 seconds)

Genetic engineering - Wikipedia, the free encyclopedia
Genetic engineering, recombinant DNA technology, **genetic** modification/manipulation (GM) and gene splicing are terms that apply to the direct manipulation of ...
en.wikipedia.org/wiki/Genetic_engineering - 55k - [Cached](#) - [Similar pages](#)

Human genetic engineering - Wikipedia, the free encyclopedia
 26 Mar 2008 ... Human **genetic engineering** is the alteration or change in the DNA of humans by modifying the genotype of the unborn individual to control ...
en.wikipedia.org/wiki/Human_genetic_engineering - 47k - [Cached](#) - [Similar pages](#)
[More results from en.wikipedia.org »](#)

Say no to genetic engineering | Greenpeace International
Genetic engineering enables scientists to create plants, animals and micro-organisms by manipulating genes in a way that does not occur naturally ...
www.greenpeace.org/international/campaigns/genetic-engineering - 60k - [Cached](#) - [Similar pages](#)

Genetic Engineering & Biotechnology News - Biotechnology from ...
Genetic Engineering & Biotechnology News - Biotechnology from Bench to Business. The Leading Publication in Biotechnology. **Genetic Engineering News** is the ...
www.genengnews.com/ - 51k - [Cached](#) - [Similar pages](#)

Genetic Engineering and Its Dangers
 Essays, links to resources and a bibliography compiled by Dr Ron Epstein at the Philosophy Department. Categories include ethical and religious questions, ...
online.sfsu.edu/~rone/GEessays/genedanger.htm - 46k - [Cached](#) - [Similar pages](#)

What is Genetic Engineering?
 Scientists identified a particular gene which enables a flounder to resist cold and used the technology of **genetic engineering** to insert this "anti-freeze" ...
www.ssf-food.org/~issue/eg.html - 6k - [Cached](#) - [Similar pages](#)

GENETIC ENGINEERING HOME PAGE
 15 May 2001 ... This page is a home page to introduce you to SRT's series of pages on various aspects of **genetic engineering** and cloning and the ethical ...
www.srtf.org.uk/geneng0.shtml - 23k - [Cached](#) - [Similar pages](#)

GMO - Genetic Engineering - CAMPAIGN TO BAN GENETICALLY ENGINEERED ...
 Articles and links in multiple languages concerning genetically engineered foods.
www.netlink.de/gen/ - 24k - [Cached](#) - [Similar pages](#)

Explore More: Genetic Engineering
 Explore More: **Genetic Engineering** tells you the story, gives you the facts, and then takes a closer look to help you unravel the core issues. ...
www.ipiv.org/exploremore/ge/ - 29k - [Cached](#) - [Similar pages](#)

Genetic Engineering: What is Genetic Engineering? | Globalchange ...
Genetic engineering is the alteration of **genetic** code by artificial means, ... **Genetic engineering** examples include taking the gene that programs poison in ...
www.globalchange.com/geneticengn.htm - 41k - [Cached](#) - [Similar pages](#)

Searches related to: **genetic engineering**

[advantages of genetic engineering](#) [human genetic engineering](#) [genetic engineering history](#) [genetic engineering definition](#)
[genetic engineering animation](#) [genetic engineering dangers](#) [cloning](#) [biotechnology](#)

Evaluation of the results page

1 Reminding yourself of the required information:
 Please remind yourself of the information you are currently looking for.
[Our notes](#)
 If the results list does not look promising, suggest to go back and enter an amended search query.

2 Commenting on the suggested link:
 Do you think the link your learning partner suggests is appropriate to find information that is
 a) relevant for the argument you sketched before,
 b) scientifically substantiated and credible and
 c) impartial?
 Would you have chosen a different link?

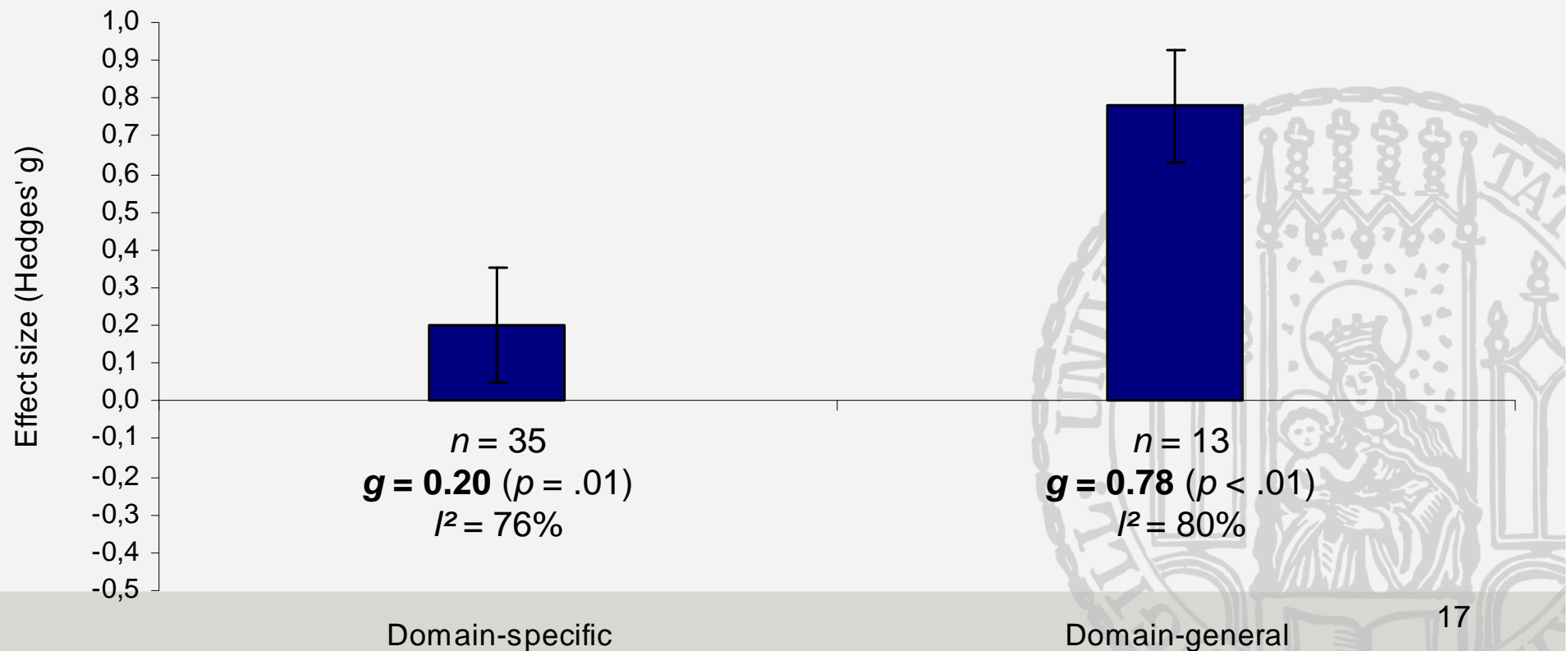
3 Learning partner goes to the selected page:
 Your learning partner now goes to the page you agreed upon.

Fertig

Start 2 Windows ... 3 Novel Gr ... 7 Microsoft ... 2 Microsoft ... 12 Internet ... technologea ... genetic engn ... Google 14:40

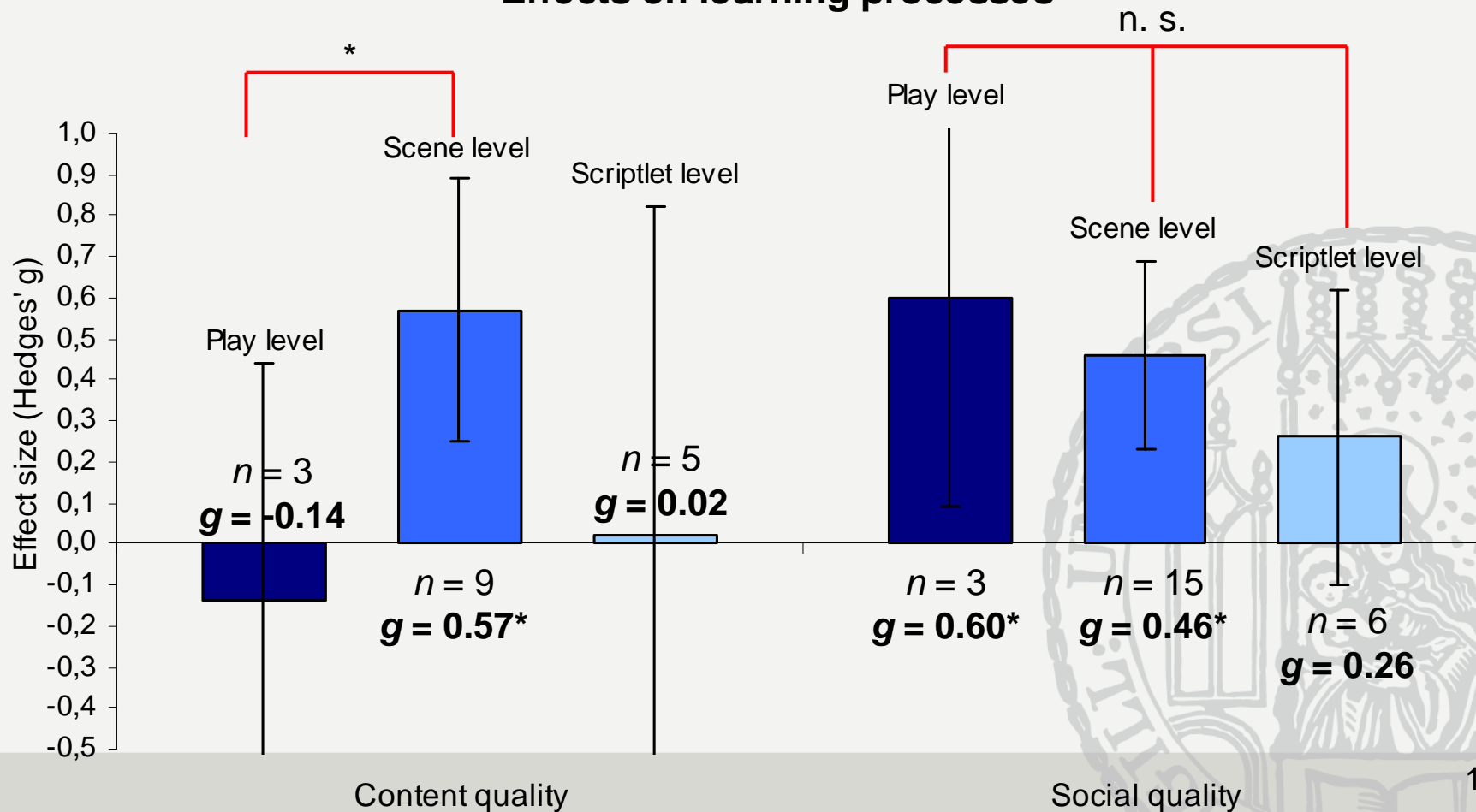
How they affect CSCL practices and learning

Effects on learning outcomes



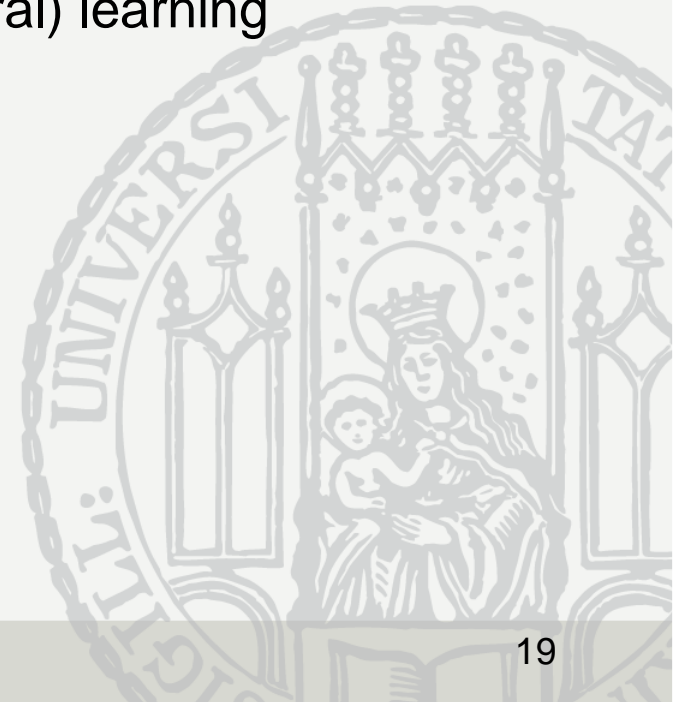
How they affect CSCL practices and learning

Effects on learning processes



Your task

- Develop an external collaboration script that guides the interactions between the instructors and the students within this Flash-Meeting in a way that will likely yield positive effects in terms of students' individual (domain-specific and domain-general) learning
- You have 20 minutes for this!



Why some people are afraid of „over-scripting“



genetic engineering - Google Search - Mozilla Firefox

File Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://www.google.de/search?q=genetic+engineering&btnG=Google+Search

Web Images Maps News Shopping Mail more Sign in

genetic engineering Search Advanced Search Preferences

Web Results 1 - 10 of about 14,700,000 for genetic engineering [definition]. (0.30 seconds)

Sponsored Links

Cell Line Engineering
Sigma-Aldrich Introduces CompoZr Zinc Finger Nuclease Technology
www.edforthebetter.com

Recombining
Kits, Licenses & Services
By patented Red/ET Recombination
www.genebridges.com

Engineering education
Learn more, Teach more, Do more
Engineering Education for 2020
www.nae.edu/casee

Custom Transgenic Mice
Reliable delivery, fast timelines, scientific expertise for models
www.taconic.com/atenis

Gene Synthesis by GENEART
gene synthesis from 0.49/bp - buy now at our best rate ever!
www.geneart.com

Genetic Research Projects
Discover your Personal Genetic History. Buy Geographic Kit!
NationalGeographic.com/Genographic/

Vital Signs
A global look at the world of health. Monthly, only on CNN.
cnn.com/vitalsigns

Synthetic Genes
and other doublestranded DNA constructs by de novo DNA-synthesis
www.ig-biosynthetics.com

Genetic engineering - Wikipedia, the free encyclopedia
Genetic engineering, recombinant DNA technology, genetic modification/manipulation (GM) and gene splicing are terms that apply to the direct manipulation of ...
en.wikipedia.org/wiki/Genetic_engineering - 55k - Cached - Similar pages

Human genetic engineering - Wikipedia, the free encyclopedia
26 Mar 2008 ... Human genetic engineering is the alteration or change in the DNA of humans by modifying the genotype of the unborn individual to control ...
en.wikipedia.org/wiki/Human_genetic_engineering - 47k - Cached - Similar pages
More results from en.wikipedia.org »

Say no to genetic engineering | Greenpeace International
Genetic engineering enables scientists to create plants, animals and micro-organisms by manipulating genes in a way that does not occur naturally ...
www.greenpeace.org/international/campaigns/genetic-engineering - 60k - Cached - Similar pages

Genetic Engineering & Biotechnology News - Biotechnology from ...
Genetic Engineering & Biotechnology News - Biotechnology from Bench to Business. The Leading Publication in Biotechnology. Genetic Engineering News is the ...
www.genengnews.com/ - 51k - Cached - Similar pages

Genetic Engineering and Its Dangers
Essays, links to resources and a bibliography compiled by Dr Ron Epstein at the Philosophy Department. Categories include ethical and religious questions, ...
online.sfsu.edu/~rone/GEessays/genedanger.htm - 46k - Cached - Similar pages

What is Genetic Engineering?
Scientists identified a particular gene which enables a flounder to resist cold and used the technology of genetic engineering to insert this 'anti-freeze' ...
www.ssf-food.org/~issue/eg.html - 6k - Cached - Similar pages

GENETIC ENGINEERING HOME PAGE
15 May 2001 ... This page is a home page to introduce you to SRT's series of pages on various aspects of genetic engineering and cloning and the ethical ...
www.srtf.org.uk/geneng0.shtml - 23k - Cached - Similar pages

GMO - Genetic Engineering - CAMPAIGN TO BAN GENETICALLY ENGINEERED ...
Articles and links in multiple languages concerning genetically engineered foods.
www.netlink.de/gen/ - 24k - Cached - Similar pages

Explore More: Genetic Engineering
Explore More: Genetic Engineering tells you the story, gives you the facts, and then takes a closer look to help you unravel the core issues. ...
www.ipiv.org/exploremore/gen/ - 29k - Cached - Similar pages

Genetic Engineering: What is Genetic Engineering? | Globalchange ...
Genetic engineering is the alteration of genetic code by artificial means, ... Genetic engineering examples include taking the gene that programs poison in ...
www.globalchange.com/geneticengn.htm - 41k - Cached - Similar pages

Searches related to: genetic engineering

advantages of genetic engineering human genetic engineering genetic engineering history genetic engineering definition
genetic engineering animation genetic engineering dangers cloning biotechnology

Evaluation of the results page

1 Reminding yourself of the required information:
Please remind yourself of the information you are currently looking for.
Our notes
If the results list does not look promising, suggest to go back and enter an amended search query.

2 Commenting on the suggested link:
Do you think the link your learning partner suggests is appropriate to find information that is
a) relevant for the argument you sketched before,
b) scientifically substantiated and credible and
c) impartial?
Would you have chosen a different link?

3 Learning partner goes to the selected page:
Your learning partner now goes to the page you agreed upon.

Fertig

Start 2 Windows ... 3 Novel Gr ... 7 Microsoft ... 2 Microsoft ... 12 Internet ... technological ... genetic engn ... Google 14:40

genetic engineering - Google Search - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://www.google.de/search?hl=en&q=genetic+engineering&btnG=Google+Search

Web Images Maps News Shopping Mail more

Sign in

Evaluation of the results page

1 Reminding yourself of the required information:

2 Commenting on the suggested link:

3 Learning partner goes to the selected page:

Google genetic engineering Search Advanced Search Preferences

Web Results 1 - 10 of about 14,700,000 for genetic engineering [definition]. (0.30 seconds)

Sponsored Links

Cell Line Engineering
Sigma-Aldrich Introduces CompoZr Zinc Finger Nuclease Technology
www.edforthebetter.com

Recombining
Kits, Licenses & Services
By patented Red/ET Recombination
www.genebridges.com

Engineering education
Learn more, Teach more, Do more
Engineering Education for 2020
www.nae.edu/casee

Custom Transgenic Mice
Reliable delivery, fast timelines, scientific expertise for models
www.taconic.com/atenis

Gene Synthesis by GENEART
gene synthesis from 0.49/bp - buy now at our best rate ever!
www.geneart.com

Genetic Research Projects
Discover your Personal Genetic History. Buy Geographic Kit!
NationalGeographic.com/Genographic/

Vital Signs
A global look at the world of health. Monthly, only on CNN.
cnn.com/vitalsigns

Synthetic Genes
and other doublestranded DNA constructs by de novo DNA-synthesis
www.ig-biosynthetics.com

Genetic engineering - Wikipedia, the free encyclopedia
Genetic engineering, recombinant DNA technology, genetic modification/manipulation (GM) and gene splicing are terms that apply to the direct manipulation of ...
en.wikipedia.org/wiki/Genetic_engineering - 55k - Cached - Similar pages

Human genetic engineering - Wikipedia, the free encyclopedia
26 Mar 2008 ... Human genetic engineering is the alteration or change in the DNA of humans by modifying the genotype of the unborn individual to control ...
en.wikipedia.org/wiki/Human_genetic_engineering - 47k - Cached - Similar pages
More results from en.wikipedia.org »

Say no to genetic engineering | Greenpeace International
Genetic engineering enables scientists to create plants, animals and micro-organisms by manipulating genes in a way that does not occur naturally ...
www.greenpeace.org/international/campaigns/genetic-engineering - 60k - Cached - Similar pages

Genetic Engineering & Biotechnology News - Biotechnology from ...
Genetic Engineering & Biotechnology News - Biotechnology from Bench to Business. The Leading Publication in Biotechnology. Genetic Engineering News is the ...
www.genengnews.com/ - 51k - Cached - Similar pages

Genetic Engineering and Its Dangers
Essays, links to resources and a bibliography compiled by Dr Ron Epstein at the Philosophy Department. Categories include ethical and religious questions, ...
online.sfsu.edu/~rone/GEessays/genedanger.htm - 46k - Cached - Similar pages

What is Genetic Engineering?
Scientists identified a particular gene which enables a flounder to resist cold and used the technology of genetic engineering to insert this "anti-freeze" ...
www.ssf-food.org/~issue/ige.html - 6k - Cached - Similar pages

GENETIC ENGINEERING HOME PAGE
15 May 2001 ... This page is a home page to introduce you to SRT's series of pages on various aspects of genetic engineering and cloning and the ethical ...
www.srtf.org.uk/geneng0.shtml - 23k - Cached - Similar pages

GMO - Genetic Engineering - CAMPAIGN TO BAN GENETICALLY ENGINEERED ...
Articles and links in multiple languages concerning genetically engineered foods.
www.netlink.de/gen/ - 24k - Cached - Similar pages

Explore More: Genetic Engineering
Explore More: Genetic Engineering tells you the story, gives you the facts, and then takes a closer look to help you unravel the core issues. ...
www.ipiv.org/exploremore/ge/ - 29k - Cached - Similar pages

Genetic Engineering: What is Genetic Engineering? | Globalchange ...
Genetic engineering is the alteration of genetic code by artificial means, ... Genetic engineering examples include taking the gene that programs poison in ...
www.globalchange.com/geneticengn.htm - 41k - Cached - Similar pages

Searches related to: genetic engineering

advantages of genetic engineering human genetic engineering genetic engineering history genetic engineering definition
genetic engineering animation genetic engineering dangers cloning biotechnology

Fertig

Start 2 Windows ... 3 Novel Gr ... 3 Microsoft ... 2 Microsoft ... 12 Internet ... technological ... genetic engn ... Google 1:40

genetic engineering - Google Search - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://www.google.de/search?hl=en&q=genetic+engineering&btnG=Google+Search

Web Images Maps News Shopping Mail more

Sign in

Evaluation of the results page

Google genetic engineering Search Advanced Search Preferences

Web Results 1 - 10 of about 14,700,000 for genetic engineering [definition]. (0.30 seconds)

Sponsored Links

Cell Line Engineering
Sigma-Aldrich Introduces CompoZr Zinc Finger Nuclease Technology
www.edforthebetter.com

Recombining
Kits, Licenses & Services
By patented Red/ET Recombination
www.genebridges.com

Engineering education
Learn more. Teach more. Do more
Engineering Education for 2020
www.nae.edu/casee

Custom Transgenic Mice
Reliable delivery, fast timelines, scientific expertise for models
www.taconic.com/atenis

Gene Synthesis by GENEART
gene synthesis from 0.49/bp - buy now at our best rate ever!
www.geneart.com

Genetic Research Projects
Discover your Personal Genetic History. Buy Geographic Kit!
NationalGeographic.com/Genographic/

Vital Signs
A global look at the world of health. Monthly, only on CNN.
cnn.com/vitalsigns

Synthetic Genes
and other doublestranded DNA constructs by de novo DNA-synthesis
www.ig-biosynthetics.com

Genetic engineering - Wikipedia, the free encyclopedia
Genetic engineering, recombinant DNA technology, genetic modification/manipulation (GM) and gene splicing are terms that apply to the direct manipulation of ...
en.wikipedia.org/wiki/Genetic_engineering - 55k - Cached - Similar pages

Human genetic engineering - Wikipedia, the free encyclopedia
26 Mar 2008 ... Human genetic engineering is the alteration or change in the DNA of humans by modifying the genotype of the unborn individual to control ...
en.wikipedia.org/wiki/Human_genetic_engineering - 47k - Cached - Similar pages
More results from en.wikipedia.org »

Say no to genetic engineering | Greenpeace International
Genetic engineering enables scientists to create plants, animals and micro-organisms by manipulating genes in a way that does not occur naturally ...
www.greenpeace.org/international/campaigns/genetic-engineering - 60k - Cached - Similar pages

Genetic Engineering & Biotechnology News - Biotechnology from ...
Genetic Engineering & Biotechnology News - Biotechnology from Bench to Business. The Leading Publication in Biotechnology. Genetic Engineering News is the ...
www.genengnews.com/ - 51k - Cached - Similar pages

Genetic Engineering and Its Dangers
Essays, links to resources and a bibliography compiled by Dr Ron Epstein at the Philosophy Department. Categories include ethical and religious questions, ...
online.sfsu.edu/~rone/GEessays/genedanger.htm - 46k - Cached - Similar pages

What is Genetic Engineering?
Scientists identified a particular gene which enables a flounder to resist cold and used the technology of genetic engineering to insert this "anti-freeze" ...
www.ssf-food.org/~issue/eg.html - 6k - Cached - Similar pages

GENETIC ENGINEERING HOME PAGE
15 May 2001 ... This page is a home page to introduce you to SRT's series of pages on various aspects of genetic engineering and cloning and the ethical ...
www.srtf.org.uk/geneng0.shtml - 23k - Cached - Similar pages

GMO - Genetic Engineering - CAMPAIGN TO BAN GENETICALLY ENGINEERED ...
Articles and links in multiple languages concerning genetically engineered foods.
www.netlink.de/gen/ - 24k - Cached - Similar pages

Explore More: Genetic Engineering
Explore More: Genetic Engineering tells you the story, gives you the facts, and then takes a closer look to help you unravel the core issues. ...
www.ipiv.org/exploremore/gen/ - 29k - Cached - Similar pages

Genetic Engineering: What is Genetic Engineering? | Globalchange ...
Genetic engineering is the alteration of genetic code by artificial means, ... Genetic engineering examples include taking the gene that programs poison in ...
www.globalchange.com/geneticengn.htm - 41k - Cached - Similar pages

Searches related to: genetic engineering

advantages of genetic engineering human genetic engineering genetic engineering history genetic engineering definition
genetic engineering animation genetic engineering dangers cloning biotechnology

Fertig

Start 2 Windows ... 3 Novel Gr ... 7 Microsoft ... 2 Microsoft ... 12 Internet ... technological ... genetic eng ... Google 14:40

Internal script guidance principle	When participating in a CSCL practice, the learner's understanding of and acting in this situation is guided by dynamically configured and reconfigured internal collaboration scripts consisting of play, scene, scriptlet, and role components.
Internal script configuration principle	How an internal collaboration script is dynamically configured by a learner from the available components to guide the processing of a given situation, is influenced by the learner's set of goals and by perceived situational characteristics.
Internal script induction principle	If a learner participates in an initially unfamiliar CSCL practice, then he or she builds a new configuration of already available internal script components and, through repeated application of this configuration of internal script components, develops new higher-level components (play, scene, or role) that organize the subordinate components (scenes, roles, and scriptlets) for this CSCL practice.
Internal script reconfiguration principle	If a learner's employed internal collaboration script (i.e., a configuration of internal script components) does not lead to understanding or successful actions in a CSCL practice, the internal collaboration script configuration is likely to be modified.
Transactivity principle	The more a given CSCL practice requires the transactive application of knowledge, the better this knowledge is learned through participation in this CSCL practice.
External script guidance principle	External collaboration scripts enable learners to engage in an instance of a CSCL practice at a level beyond what they would be able to without an external collaboration script either by inhibiting the automated use of internal script components or by inducing the application of internal script components that are not yet organized by a specific higher level script component.
Optimal external scripting level principle	An external collaboration script is most effective for knowledge acquisition if it is directed at the highest possible hierarchical level of internal collaboration script components for which subordinate components are already available to the learner.