

Co-Creating the Future of Learning

Dr. Klinkenberg

2026-06-17

Table of contents

Introduction	1
Overview	2
Personalized Learning and Media Diversity	2
What is personalized learning?	2
Emerging Technologies and AI in Education	3
Didactics vs self-regulated learning	3
Assessment and Cognitive Design	4
Assessment drives learning	4
Sustainability and Responsibility in Media	5
Doing it right	5
Contact	7

Introduction

Goal: inspire, but also be realistic about what works and what doesn't. Audience: ICT professionals

- Researcher
- Teacher
- Educational technologist
- Director TLC

Overview

Personalized Learning and Media Diversity

- One-size-fits-all vs One-of-a-kind
- Narratives across modalities
- Through the learner's eyes (or ears)
- Learning Without Borders

Emerging Technologies and AI in Education

- From passive media to generative co-creation
- Augmented agency: learners, media agents & AI companions
- Learning analytics–driven media iteration & feedback loops
- Future-ready media skills

Assessment and Cognitive Design

- Rethinking assessment: from exams to experiences
- Gamification & playful design
- Cognition without overload

Sustainability and Responsibility in Media

- Media, memory & futures
- Responsibility by design: evidence and myths in learning technology
- Beyond the degree

Personalized Learning and Media Diversity

What is personalized learning?

- Do we need to tailor education?
- Multimodal learning materials
 - Text, video, audio
 - Interactive widgets
 - Assessment tools
- Analyzing what works
- Learning anywhere, anytime

shklinkenberg.github.io

2 Probability Models

How Do I Get a Sampling Distribution?

Key concepts: bootstrapping/bootstrap sample, sampling with replacement, exact approach, approximation with a theoretical probability distribution, binomial distribution, (standard) normal distribution, (Student) t distribution, F distribution, chi-squared distribution, condition checks for theoretical probability distributions, sample size, equal population variances, independent samples, dependent/paired samples.

Watch the micro lecture [Video 2.1](#) on probability models for an overview of the chapter.

SMCR Session 2
theoretical probability distribution

normal distribution as a function

Watch on YouTube

Video 2.1: Introduction to probability models.

Table of contents

- Summary**
- 2.1 Exact Approaches to the Sampling Distribution
- 2.2 Exact Approaches in SPSS
- 2.3 Theoretical Approximations of the Sampling Distribution
- 2.4 SPSS and Theoretical Approximation of the Sampling Distribution
- 2.5 The Bootstrap Approximation of the Sampling Distribution
- 2.6 Bootstrapping in SPSS
- 2.7 When Do We Use Which Approach to the Sampling Distribution?
- 2.8 Take-Home Points

[Report an issue](#)
[View source](#)
[Edit this page](#)

OER ebook

Emerging Technologies and AI in Education

Didactics vs self-regulated learning

- Balancing [guidance](#) and [autonomy](#)
- Educational design vs learner control
- Actionable learning goals
- Self-regulated learning skills

waardoor kleinere effecten significant worden 16 17 .

5. **Test statistic (Teststatistiek):** Dit is een steekproefstatistiek die wordt gebruikt om de nulhypothese te toetsen 3 18 . Als de teststatistiek gelijk is aan de kritieke waarde of extremer is, wordt de nulhypothese verworpen 18 .

6. **P-waarde:** De *p*-waarde is de kans om een teststatistiek te verkrijgen die minstens zo extreem is als het waargenomen resultaat, onder de aannname dat de nulhypothese waar is 19 20 .

De Beslissingsregel

Volgens de Neyman Pearson approach wordt de nulhypothese verworpen als de *p*-waarde kleiner dan of gelijk is aan de alpha (α) (*p*-waarde $\leq \alpha$) 3 20 . Als de *p*-waarde groter is dan α , wordt de nulhypothese niet verworpen 21 . Het vergelijken van de teststatistiek met de kritieke waarde is logisch hetzelfde als het vergelijken van de *p*-waarde met het alphaniveau 21 .

Het is cruciaal om te onthouden dat het verwerpen van de nulhypothese niet betekent dat de hypothese onwaar is, of dat de alternatieve hypothese waar is; de *p*-waarde is namelijk een voorwaardelijke kans, berekend onder de aanname dat H_0 waar is 20 21 .

Opslaan in notitie

What does alpha determine?

Who proposed Cohen's d?

What is post hoc power?

Begin met typen... 1 bron →

NotebookLM kan onnauwkeurig zijn. Dubbelcheck de reacties.

Notitie toevoegen

Beyond the... 1 bron · 98 d geleden

Null Hypothesis... 1 bron · 98 d geleden

00:11 / 18:37

NotebookML

Assessment and Cognitive Design

Assessment drives learning

- Assessment as e-learning
- Connection to learning goals
- Formative and summative
 - Authentic assessment

UvA

Account

Admin

Dashboard

Courses

Groups

Calendar

Inbox

History

Commons

My Media

Student Well-being

Help

Question 1 1 pts

In this week's preparatory assignment, we will start by covering the material in [Chapter 4](#) of the book. Chapter 4 will be divided and discussed amongst three tutorials. For the upcoming tutorial, This PA will cover the first part of the chapter (up until 4.2.5) including the following topics: hypotheses and the NHST decision table.

Start by reading the [summary](#) and watch the following video:

The screenshot shows a Canvas quiz interface. The left sidebar has a red background with white icons and text. The main area is titled "Question 1" with "1 pts" in the top right. The question text is about Chapter 4 and NHST. Below it, there's a call to action to read a summary and watch a video. A video player is embedded, showing a normal distribution curve with a mean of 5.50 and a range from 1 to 10. A red play button is visible. To the left of the video, there's a sidebar with "SMCR Session 4" and a list of steps: Step 1: Specify the null hypothesis, Step 2: Decision rule, Step 3: Draw sample, Step 4: Reject the null hypothesis? Below that is a "Change Hypothesized Population Mean" slider set to 6.5, with values from 1 to 10. At the bottom of the video player is a "Watch on YouTube" button.

Then, answer the following question.

You ran a null-hypothesis significance test, and the result was not statistically significant. What statement is true about your sample?

- If the null hypothesis is true, a sample statistic with the same value as or a more extreme value than the observed value in our sample is sufficiently unlikely to occur (sufficiently improbable) to reject the null hypothesis.
- If the null hypothesis is true, a sample statistic with the same value as or a more extreme value than the observed value in our sample is sufficiently likely to occur (sufficiently probable) to NOT reject the null hypothesis.

[canvas quiz](#)

Sustainability and Responsibility in Media

Doing it right

- The Lego approach

- Open educational resources
- The sum is greater than the parts
- Collaboration over competition

The screenshot shows the GitHub repository page for 'ShareStats'. The repository has 7 pinned repositories and 1 team. It features a sidebar with sections for Popular repositories, Discussions, and People.

ShareStats

Popular repositories

Repository	Type	Language	Stars	Forks
itembank	Public	Python	6	6
sharestats-item-editor	Public	Python	5	5
Statistics_Taxonomy	Public	HTML	2	2
Item_Development	Public	HTML	1	1
StatistiekFabriekItemConversion	Public	Jupyter Notebook	1	1
ShareStats_website	Public	JavaScript	2	2

View as: Public

You are viewing the README and pinned repositories as a public user. You can [create a README file](#) or [pin repositories](#) visible to anyone. [Get started with tasks](#) that most successful organizations complete.

Discussions

Set up discussions to engage with your community! [Turn on discussions](#)

People

Profile icons for the members of the ShareStats team.

[ShareStats](#)

Contact

Klinkenberg

ln.AvU@grebneknilK.S

ShKlinkenberg



Figure 1: CC BY-NC-SA 4.0