

THE LEARNING IDEAS CONFERENCE 2026, NEW YORK

AI-ASSISTED IDEA GENERATION IN MARKETING HIGHER EDUCATION

**A STRUCTURATION PERSPECTIVE ON IDEA FLUENCY
AND FAITHFULNESS TO ASSIGNMENT DESIGN**

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AGENDA

- 1 RELEVANCE
- 2 THEORY
- 3 METHODOLOGY
- 4 HYPOTHESIS TESTING RESULTS
- 5 DISCUSSION

THE PEDAGOGICAL TENSION AT THE HEART OF MARKETING EDUCATION

The Core Challenge

Marketing education faces two competing imperatives: maintaining **structural rigor** - through curricula and standardized assessment formats - while simultaneously enabling **learner-driven creativity and personalized, process-oriented support**. Standardized content delivery cannot satisfy the increasingly individualized demands of modern learners.

Why GenAI Changes the Game

Generative AI - exemplified by systems such as ChatGPT - enters higher education as a potential adaptive instructional design tool. Rooted in **dialogical education theory**, which traces back to early reflections on the **provisional nature of knowledge**, GenAI offers new avenues for democratizing higher education and strengthening student agency.

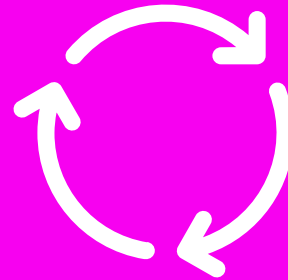
What the Literature Leaves Unresolved

The tension between GenAI's potential and its risks - **dependency, superficial learning** - has yet to be adequately theorized.

Higher Education als Mindset, Process, and Toolbox



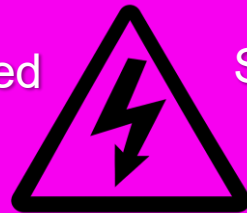
Personalized
Support



Structural
Rigor



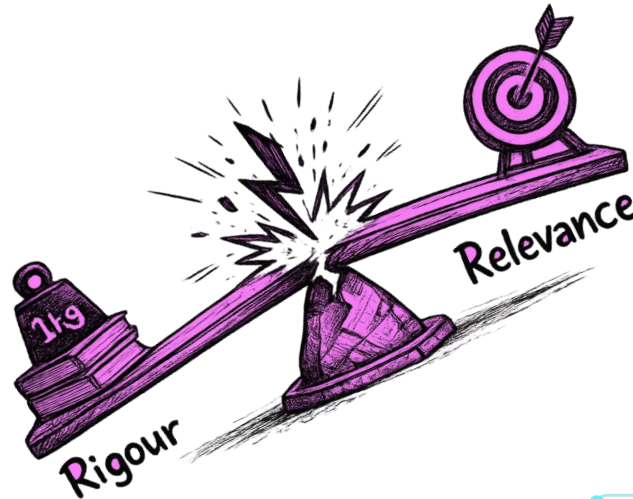
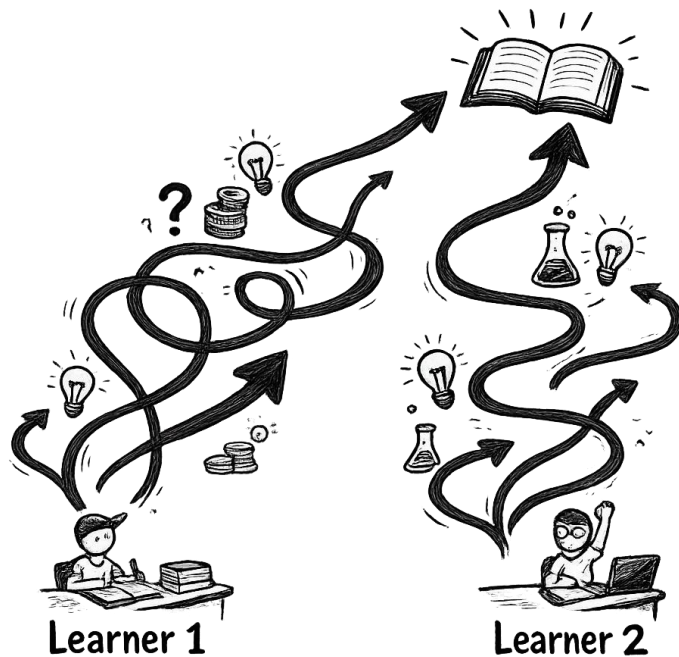
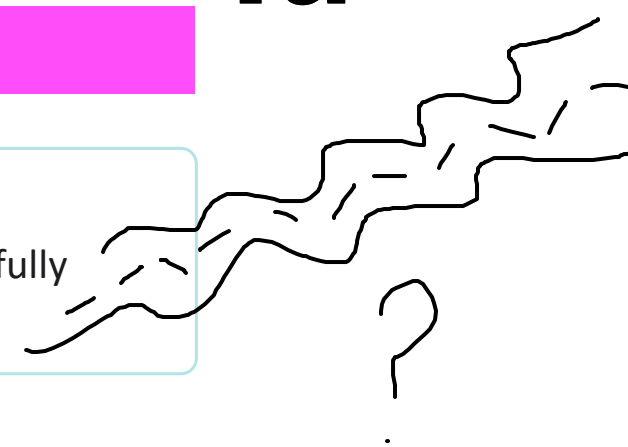
AI
Assistants



RELEVANCE

Intelligent Assistants for Learning (IAL)

Research on IAL systems demonstrates that *dynamic adaptation to student learning patterns* meaningfully enhances outcomes, engagement, and satisfaction across diverse higher education populations.



Research Gap

Scenarios **integrating dialogic conditions and learning practices** are limited; studies showing positive effects on problem-solving exist, but structurally grounded frameworks remain underdeveloped.

Proposed Bridge

AI assistants deployed as **co-developers** within student workflows - offering real-time feedback and prompting critical thinking across multiple group tasks - can **serve as a pedagogical bridge between structure and agency**.

RESEARCH FRAMEWORK & CENTRAL QUESTION

This paper develops a **theory-based model** for the use of custom AI assistants in marketing higher education, drawing on Giddens' **structuration theory** to conceptually capture the recursive relationship between institutional structure and individual agency.

Structure

Curricula, assessment formats, and module-level design constraints that define the boundaries of academic work.

Agency

Situated, iterative AI-student interactions that enable learners to navigate, appropriate, and creatively inhabit those boundaries.

Recursive Relationship

Structuration theory reveals how structure and agency *mutually constitute* one another - AI assistants become the operative mechanism of that recursion.

*"To what extent does the use of custom AI assistants in marketing higher education lead to greater **idea fluency** and greater **faithfulness of structural appropriation** of assignment design among students?"*

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- 6 FUTURE RESEARCH

THEORETICAL FOUNDATIONS

Risk Society

Ulrich Beck's concept of **modernization risks** frames GenAI as a technology whose side effects challenge established cognitive and behavioral patterns.



Structuration Theory as Analytical Framework

Giddens' **structuration theory** frames the **recursive relationship between institutional structures and student agency** - enabling rigorous analysis of how AI assistants operate within this dynamic interplay.

Structural Conditions

Curricula, assignment formats, and evaluation rubrics

Student Agency

Topic selection, creative ideation, and argumentative development

AI as Dialogic Bridge

Adaptive assistants that facilitate both structural alignment and idea generation simultaneously

AGENDA

1 RELEVANCE

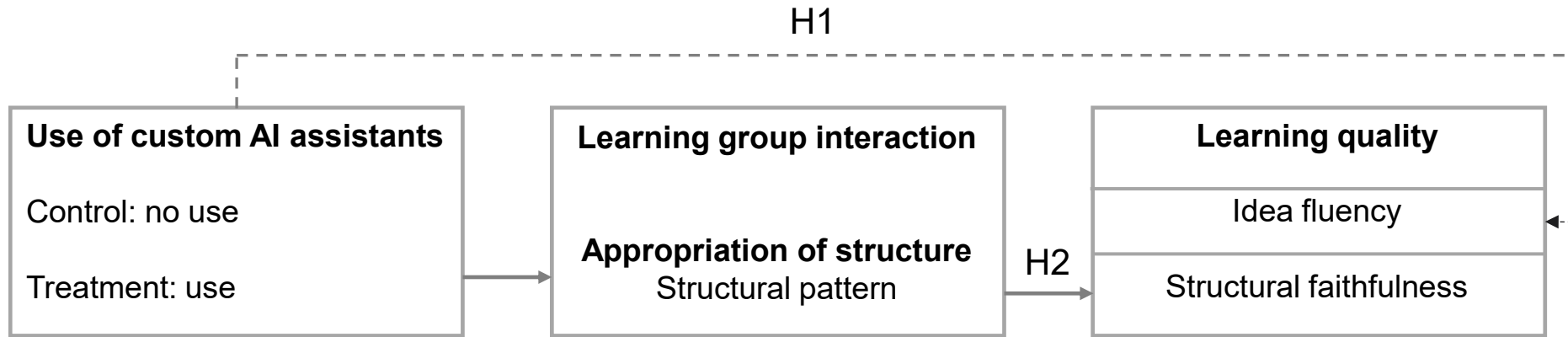
2 THEORY

3 METHODOLOGY

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EXPERIMENTAL DESIGN AND HYPOTHESES



Legend:

Idea fluency: number of items generated in the group assignment output
Structural faithfulness: degree of faithfulness (to assignment design) of the structural appropriation

Torrance Tests of Creative Thinking [4]

Structuration Theory [1]

H1: Students who use custom AI assistants exhibit higher levels of **idea fluency** than students who do not use custom AI assistants.

H2: Students who use custom AI assistants exhibit higher levels of **faithfulness of structural appropriation** than students who do not use custom AI assistants.

STUDY SAMPLE & DESIGN

A repeated-measures experiment embedded in *Current Trends in Marketing* — a dual bachelor's program in Marketing Management at **IU International University of Applied Sciences**, campus Freiburg, Germany. Data were collected across two consecutive summer semesters (2024 and 2025).

Cohort 1 - Control Group

Summer Semester 2024 · No AI-based tools

- 19 sixth-semester marketing students
- 13 female · 6 male
- 6 working groups of 3-4 students

40

Final Sample

Students after exclusion of one non-compliant participant

Cohort 2 - Treatment Group

Summer Semester 2025 · AI assistants incorporated

- 22 sixth-semester marketing students; 1 excluded (irregular attendance)
- 21 retained: 14 female · 7 male (final count adjusted)
- 6 working groups of 3-4 students

12

Working Groups

Six groups per cohort; 3-4 students each performing identical tasks

20–27

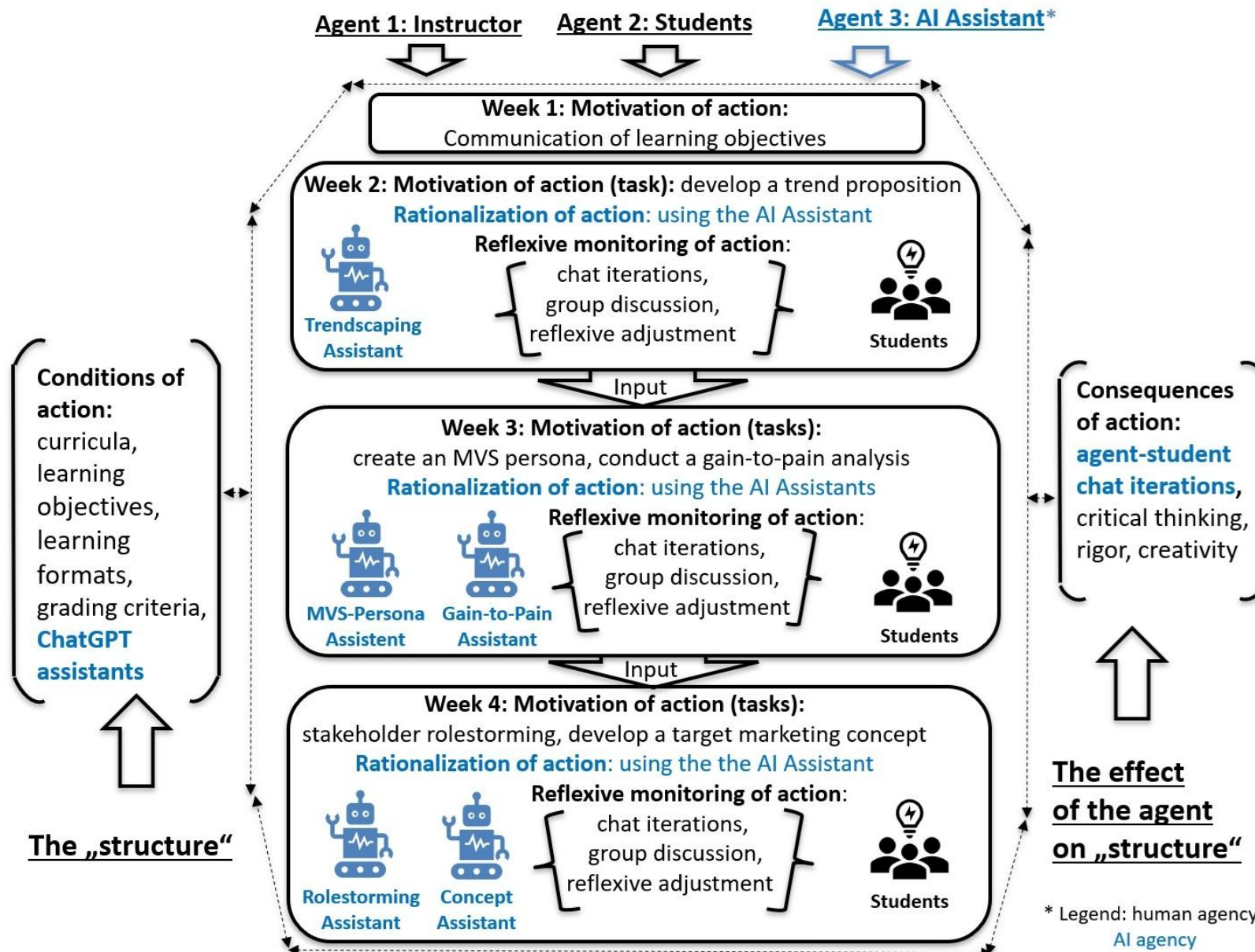
Age Range

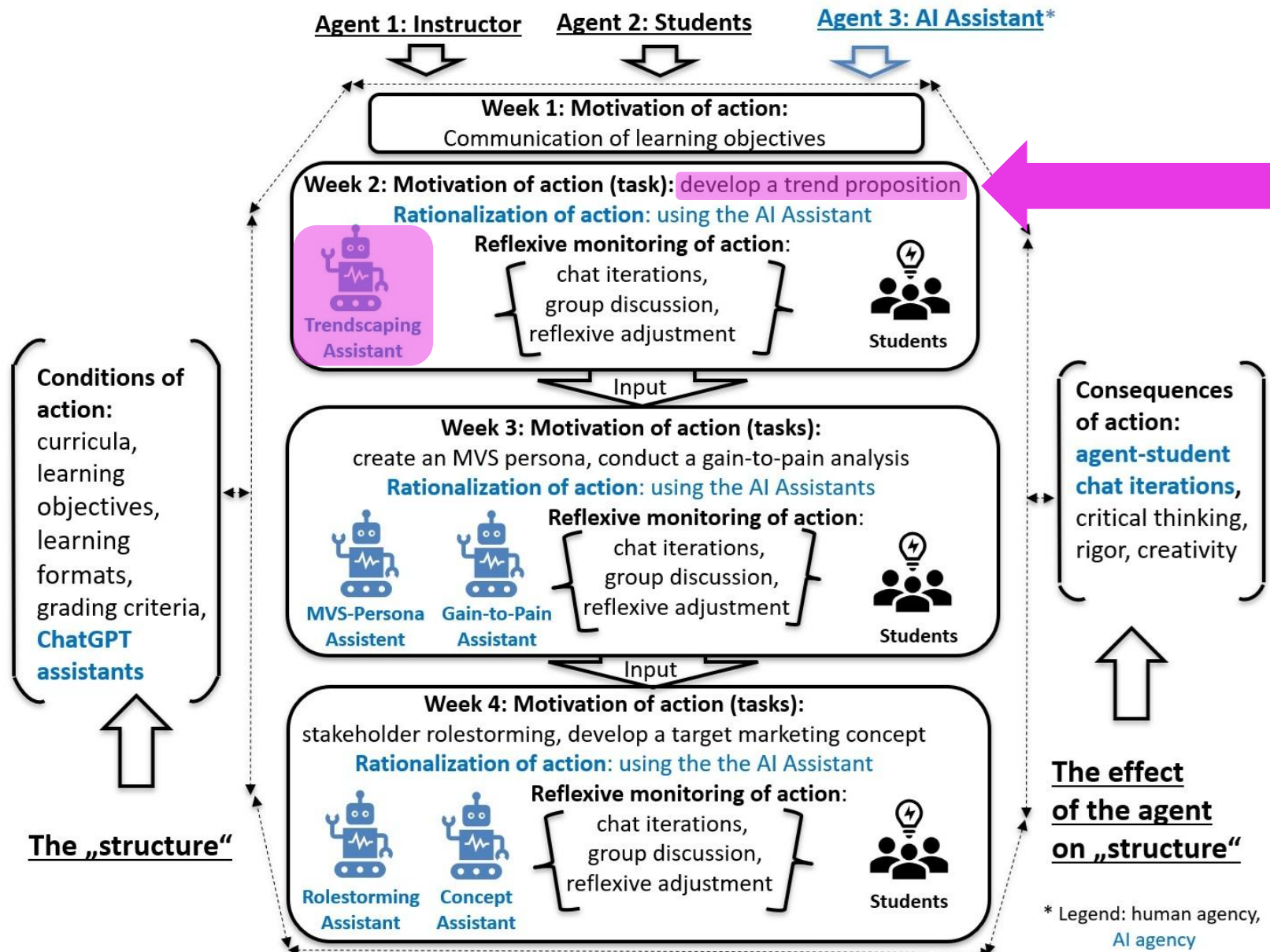
All participants were sixth-semester undergraduate students

All groups completed **identical experimental tasks**, enabling direct cross-cohort comparison.

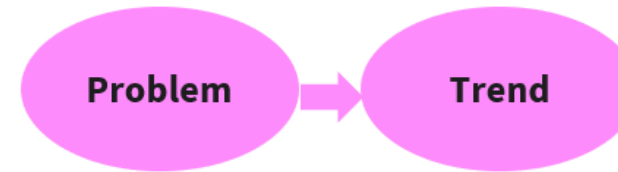
Now it gets practical!







Task: Develop a Trend Proposition



A trend proposition is a short statement that:

- ☐ Addresses a problem that is urgent, critical, and underserved.
- ☐ Positions your trend as the answer to this problem.
- ☐ Describes the benefit concretely as an “after” state that clearly outweighs the effort of adoption.

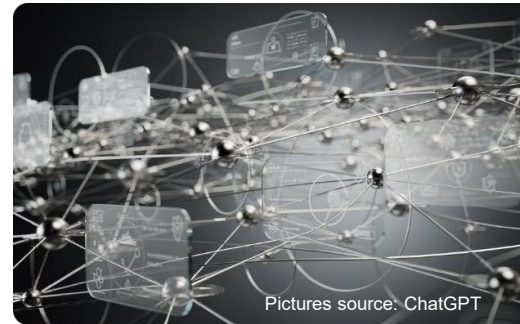
“For [**whom**], who is dissatisfied with [**what**], due to [**problem/unmet need**], the [**trend**] is emerging, which delivers [**main benefit**] (that is convincing enough to encourage adoption and engagement)”

THE TRENDSCAPING ASSISTANT



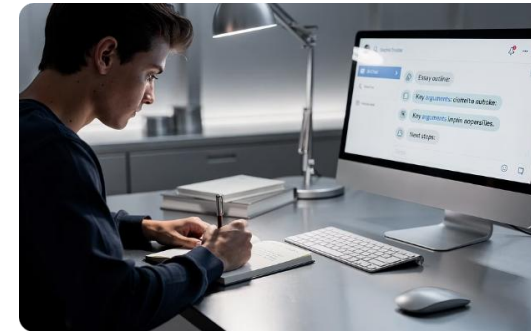
Trend Identification

Draws on four reference documents covering megatrends, consumer behavior, and analytical frameworks to extract emerging signals from complex data environments.



Problem–Trend Linkage

Analyses **problem–trend–consumer behavior** patterns, mapping each identified trend to one or more fundamental problem types: unworkable, unavoidable, urgent, or underserved.



System Prompt Transparency

The Trendscaping Assistant prompt is linked [here](#) and in the original paper, supporting replication and scholarly scrutiny.



CODING EXAMPLES

Summer semester 2024 Use of AI Assistants: No		Coding	
Participant/ Group	Output (Trend Proposition)	Idea Fluency 1: available 0: missing	Faithfulness of structural appropriation → <i>wright direction</i> ← <i>wrong direction</i> [whom]: <i>a</i> [what]: <i>b</i> [problem/unmet need]: <i>c</i> [trend]: <i>d</i> [key benefit]: <i>e</i>
7–9/ Group 3: 2 female + 1 male partici- pants	“Value-oriented consumption under economic pressure [trend] • stronger financial control • maximized utility per euro spent [key benefit]“	[whom]: 0 [what]: 0 [problem/un- met need]: 0 [trend]: 1 [key benefit]: 1	← [d], [a: miss- ing], [b: missing], [c: missing], [e]
10–13/ Group 4: 3 female + 1 male partici- pants	“Problem: Information overload and distrust in traditional advertising [problem/unmet need] Solution: social proof economy [trend] via influencers and peer reviews, faster and more confident purchase decisions [key benefit]“ ...	[whom]: 0 [what]: 0 [problem/un- met need]: 1 [trend]: 1 [key benefit]: 1	← [c], [a: miss- ing], [b: missing], [d] → [e]

Summer semester 2025 Use of AI Assistants: Yes		Coding	
Participant/ Group	Output (Trend Proposition)	Idea Fluency 1: available 0: missing	Faithfulness of structural appropriation → <i>wright direction</i> ← <i>wrong direction</i> [whom]: <i>a</i> [what]: <i>b</i> [problem/unmet need]: <i>c</i> [trend]: <i>d</i> [key benefit]: <i>e</i>
20–22/ Group 7: 3 female participants	“For companies [whom] dissatisfied with purely automated, AI-driven communication [what], the trend of Human Touch Marketing [trend] is emerging. This approach combines technical efficiency with personal, authentic communication – thereby fostering trust, differentiation, and long-term customer loyalty. [key benefit]”	[whom]: 1 [what]: 1 [problem/un- met need]: 0 [trend]: 1 [key benefit]: 1	[a] → [b] → [c: missing], [d] → [e]
23–25/ Group 8: 2 female + 1 male partici- pants	“For social media managers [whom] frustrated by restrictive corporate processes, risk-averse cultures, and slow approvals [what], the trend Freiraum Social [trend] is emerging, which offers a protected space for creative experimentation, streamlined coordination, and targeted training – compelling enough to deliver quick wins, boost engagement, and inspire a bold, human-centered communication culture. [key benefit]”	[whom]: 1 [what]: 1 [problem/un- met need]: 0 [trend]: 1 [key benefit]: 1	[a] → [b] → [c: missing], [d] → [e]

Table 4. Structural faithfulness as a ratio across all cohorts

Structural Faithfulness					
Coding scheme: Ratio between the number of arrows in the <i>right</i> (structurally prescribed) <i>direction</i> (→) and total number of arrows					
Group	Use of AI Assistants no: 0, yes: 1	Generated Items [a–e]	Right Direction Arrows	Total Arrows	Faithfulness Ratio
Group 1	0	[a] → [b] → [c] → [d] → [e]	4	4	1
Group 2	0	[a: missing], [b] → [c: missing], [d: missing], [e]	1	1	1
Group 3	0	← [d], [a: missing], [b: missing], [c: missing], [e]	0	1	0
Group 4	0	← [c], [a: missing], [b: missing], [d] → [e]	1	2	0,5
Group 5	0	[a: missing], [b: missing], [c: missing], [d: missing], [e]	0	0	0
Group 6	0	← [d], [a: missing], [b: missing], [c: missing], [e]	0	1	0
Group 7	1	[a] → [b] → [c: missing], [d] → [e]	3	3	1
Group 8	1	[a] → [b] → [c: missing], [d] → [e]	3	3	1
Group 9	1	[a] → [b] → [c] → [d] → [e]	4	4	1
Group 10	1	[a] → [b] → [c] → [d] → [e]	4	4	1
Group 11	1	[a] → [b] → [c] → [d] → [e]	4	4	1
Group 12	1	[a] → [b] → [c] → [d] → [e]	4	4	1

Table 5. Idea fluency as number of items generated in each group output

Idea Fluency			
Coding scheme: Number of items generated in each group output			
Group	Use of AI Assistants no: 0, yes: 1	Generated Items [a–e]	Idea Fluency (number of items generated)
Group 1	0	[a], [b], [c], [d], [e]	5
Group 2	0	[b], [e]	2
Group 3	0	[d], [e]	2
Group 4	0	[c], [d], [e]	3
Group 5	0	[e]	1
Group 6	0	[d], [e]	2
Group 7	1	[a], [b], [d], [e]	4
Group 8	1	[a], [b], [d], [e]	4
Group 9	1	[a], [b], [c], [d], [e]	5
Group 10	1	[a], [b], [c], [d], [e]	5
Group 11	1	[a], [b], [c], [d], [e]	5
Group 12	1	[a], [b], [c], [d], [e]	5

AGENDA

1 RELEVANCE

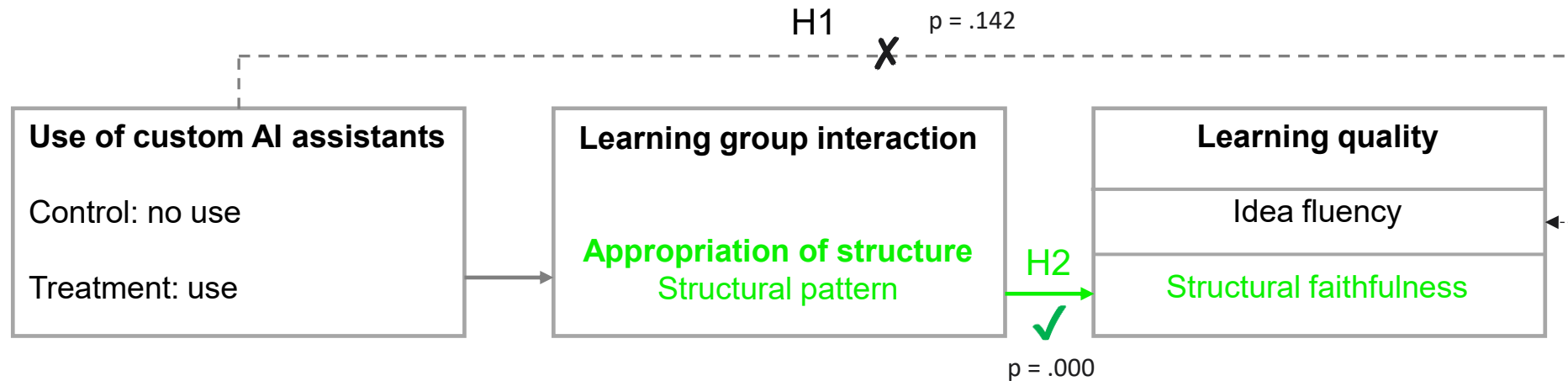
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HYPOTHESIS TESTING RESULTS



Legend:

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H1: Students who use custom AI assistants exhibit higher levels of idea fluency than students who do not use custom AI assistants. X

H2: Students who use custom AI assistants exhibit higher levels of faithfulness of structural appropriation than students who do not use custom AI assistants. ✓

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2 THEORY

3 METHODOLOGY

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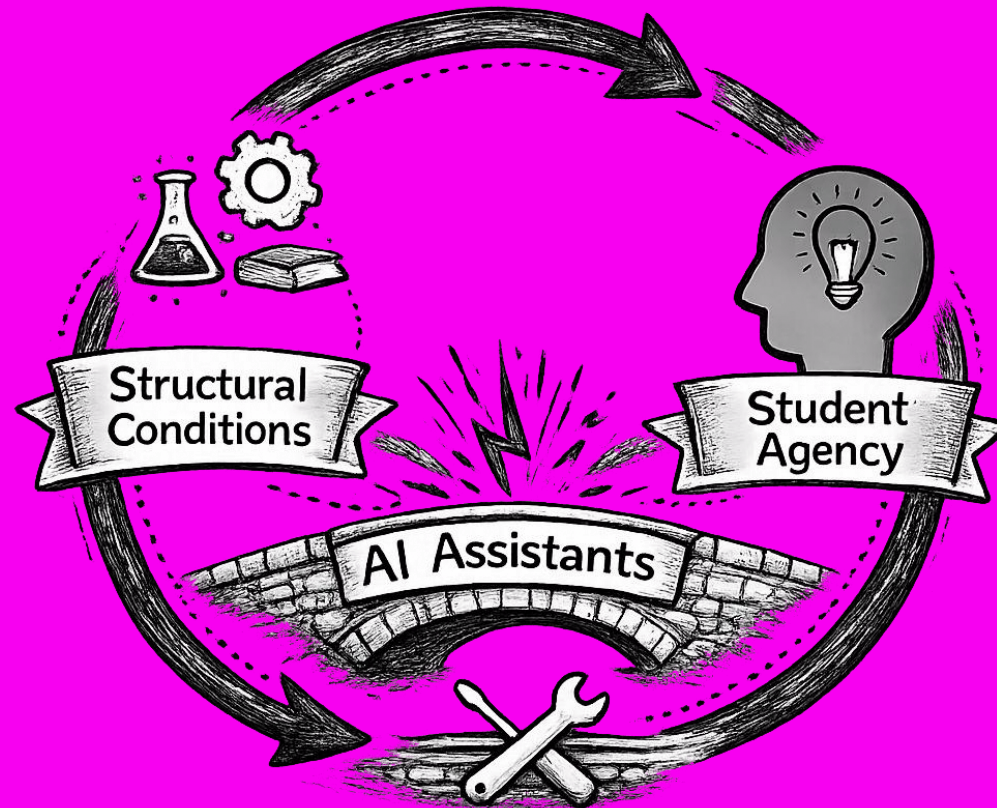
5 DISCUSSION

So what does all of this actually mean?





Higher Education as Mindset, Process, and Toolbox



Illustrations source: Own Illustrations with the help of ChatGPT

SO WHAT?

RESEARCH DESIGN

Between-Subjects Repeated-Measures Experiment

Two student cohorts in a higher education marketing context were compared: one cohort used AI assistants throughout the assignment process; the other received no AI support. Two hypotheses were tested:

- **H1:** AI assistant users demonstrate higher levels of **idea fluency**
- **H2:** AI assistant users exhibit greater **faithfulness of structural appropriation**

H1 - Not Confirmed

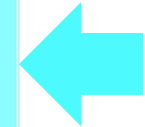
No significant increase in **idea fluency** was observed among AI-assisted students.

H2 - Confirmed (99% CI)

AI-assisted students demonstrated **significantly higher structural faithfulness** in applying assignment design conventions - a finding, underscoring AI's role as a structural reinforcement mechanism.

Theoretical Implication

AI stabilizes and **reproduces structural conditions** within learning processes, strengthening the structure-agency interplay.



These findings suggest that AI assistants primarily function as scaffolding mechanisms that reinforce structural alignment rather than as drivers of increased creative output.

LIMITATIONS

- **Scalability constraints:** Developing custom AI assistants demands significant didactic and technical expertise, limiting broad automation or deployment at scale.
- **Cohort confound:** The between-subjects design relies on **temporally separated cohorts**, making it impossible to fully isolate AI effects from cohort-level or contextual variation.
- **Generalizability:** With 40 participants, findings cannot be universally generalized - they serve as **indicative reference points**, not definitive conclusions.

TRANSFERABILITY AND FUTURE DIRECTIONS

Despite these constraints, the approach shows meaningful potential for broader application. **Once developed, AI assistants can - with appropriate curricular adjustment - be deployed across diverse teaching contexts.**

Future research should prioritize:

- Systematic development and validation of **AI assistant repositories** tailored to specific marketing education modules
- Creation of **open-access instructor databases** enabling curriculum-integrated AI use at scale
- Longitudinal and larger-sample designs to strengthen causal inference and generalizability

Future research could extend the study beyond structural faithfulness by measuring **job readiness competencies** such as *collaboration*, *communication*, and *AI fluency*, while simultaneously integrating the **two** of the four Job Readiness Framework **professional modes**:

- ~~Creative Problem Solver~~
- **Continuous Learner**
- **Collaborative Strategist**
- ~~Ethical Navigator~~

as explicit analytical dimensions.

1. Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Berkeley: University of California Press
2. Kumtanom, T. (2022). Two women holding a pen [Photographie]. <https://www.pexels.com/photo/two-women-holding-pen-601170/>
3. Piacquadio, A. (2022). Woman draws a light bulb in white board [Photography]. <https://www.pexels.com/photo/woman-draw-a-light-bulb-in-white-board-3758105/>
4. Yoon, Cho-Hee. (2017). "A validation study of the Torrance Tests of Creative Thinking with a sample of Korean elementary school students." *Thinking Skills and Creativity* 26, p.39.

**THANK YOU!
QUESTIONS?**