

Anweisungen für Distraktoren

Background Information: Distractor Quality in Multiple-Choice Questions (Higher Education Context)

This GPT is designed to support the construction and evaluation of multiple-choice test items in higher education, with a focus on learning psychology, instructional design, and psychometric validity. A key element of well-constructed items is the **quality of distractors** – the incorrect answer choices.

General Principles (based on Haladyna, Downing & Rodriguez, 2002; Rodriguez, 2005):

Distractors must:

- Be **plausible** and cognitively engaging.
- Represent **typical misconceptions** or **common errors**.
- Match the **cognitive level** of the correct answer.
- Contribute to the **discrimination power** (item difficulty and differentiation).

Distractors must not:

- Be **implausible, nonsensical, or humorous**.
- Use **absolute terms** like "always", "never", "all", or "none", which cue testwise students.
- Vary in **length, style, or grammar** compared to the other options.
- Remain **unchosen** by nearly all examinees ("dead distractors" – selected by <5% of students).
- Include **grammatical inconsistencies** with the question stem.

Error Types in Distractor Writing (with rules)

Error Type	Avoid (Negative Rule)	Apply (Positive Rule)
Implausible Content	Don't write distractors that are obviously incorrect or absurd.	Ensure all distractors are conceptually plausible within the topic.
Grammatical Inconsistency	Don't allow distractors to mismatch the stem grammatically.	Match case, number, and structure between stem and options.
Length/Style Imbalance	Don't make the correct answer stand out in wording or complexity.	Keep all options similar in length, tone, and specificity.
Absolutist Language	Avoid "always", "never", "only", etc.	Use qualified language: "typically", "may", "often", "in most cases".

Error Type	Avoid (Negative Rule)	Apply (Positive Rule)
Dead Distractors	Don't include options that are never chosen.	Base distractors on real misconceptions from course data or past exams.

Application Examples (by Field)

Field	Weak Distractor	Improved Version
Automation Engineering	"Sensors detect thoughts"	"Sensors measure physical quantities such as pressure or temperature"
Marketing	"All consumers respond the same to ads"	"Consumer responses vary by segment and ad format"
Management	"Leadership has no impact on motivation"	"Different leadership styles influence employee motivation differently"
Accounting	"Accounts can never have a negative balance"	"Asset accounts may show a negative balance when overdrawn"
Controlling	"Budgeting is the only method for cost control"	"Budgeting is a central tool, often complemented by variance analysis"
Business Informatics	"Databases only contain text"	"Relational databases store structured data, including numbers, dates, and text"

This knowledge base ensures that all generated multiple-choice items follow **psychometrically sound, cognitively valid**, and **discipline-appropriate** standards. The GPT is expected to suggest or improve distractors using these rules, including appropriate examples across common academic domains.

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Fehlerart	Negativregel	Positivregel	Beispiel
Plausibilitätsmangel	Vermeide Distraktoren, die offensichtlich falsch oder unlogisch sind.	Alle Distraktoren sollen inhaltlich plausibel und fachlich vertretbar sein.	Automatisierung 'Ein Sensor erkennt → 'Ein Sensor erkennt physikalische Me Druck oder Temp

Grammatikalische Inkonsistenz	Formuliere Distraktoren nicht grammatikalisch abweichend vom Fragetext.	Alle Optionen sollen grammatikalisch zum Fragetext passen.	Marketing: Statt Marktanalyse du 'Die Marktanalyse' wesentlicher Teil Marktforschung
Auffällige Länge oder Stil	Vermeide, dass die richtige Antwort durch Länge oder Stil hervorsticht.	Alle Antwortoptionen sollen hinsichtlich Länge und Stil vergleichbar sein.	Controlling: Statt Budgetcontrolling Methode zur Kosten moderner Unternehmen 'Budgetcontrolling' zentrales Instrument Kostenüberwachung
Absolutheitsbegriffe	Verwende keine übertriebenen Absolutheitswörter wie 'immer', 'nie', 'alle', 'nur'.	Formuliere Aussagen differenziert, um realistische Bedingungen widerzuspiegeln.	Automatisierung 'Ein Sensor liefert Werte' → 'Ein Sensor der Regel genau abhängig von Kaufumgebung.'
Tote Distraktoren	Verwende keine Distraktoren, die von niemandem gewählt werden.	Distraktoren sollten typische Fehlannahmen oder Missverständnisse abbilden.	Management: Statt irrelevant für Mitarbeitermotivation 'Führung beeinflusst Mitarbeitermotivation' unterschiedliche Maßnahmen.'