



LehrPuls compared

Competitive analysis for LehrPuls 1.17 — as of October 28, 2026

LehrPuls is a polling and questioning system for lecture halls, seminars, and training: the instructor asks questions from their own laptop, participants answer in the browser of their smartphone, tablet, or laptop, and the projector shows the question and the result. This analysis compares LehrPuls version 1.17.0 (released October 27, 2026) with ten widely used services: **Kahoot!**, **Mentimeter**, **Wooclap**, **Poll Everywhere**, **Slido**, **AhaSlides**, **Particify**, **Vevox**, **Socrative**, and **Wayground** (formerly Quizizz).

It is written for instructors, teaching and e-learning centers, IT and data protection officers, and anyone choosing such a tool for an institution. Part 3 describes what LehrPuls can do in detail — including the many small things that make the difference in everyday teaching. Part 4 compares area by area, and Part 6 states plainly where other services are ahead.

1. Summary

- **No account, no cloud, no subscription.** LehrPuls runs on the instructor's laptop; the laptop is the server. Participants need neither an app nor an account, and neither does the instructor. The data stays in the instructor's own data folder — no data processing agreement is needed when running on your own network. Where there is no shared network, the LehrPuls relay connects the devices over the internet, end-to-end encrypted. You pay once, not every year.
- **Nineteen question types plus question blocks.** Version 1.17 added ranking, point budget, idea wall, 2×2 grid, and formula (recognizing equivalent expressions), along with scales with several statements, gaps with a choice list, and labeling an image. Everything that was still missing as a market expectation in September 2026 is now covered.
- **Analytics as in test theory — found at none of the ten services compared.** Difficulty index, discrimination, dead distractors, a quality map across every use of a question, the longitudinal view of the same question across semesters, maturity per topic, and time planning, planned versus actual. On top of that, LehrPuls checks your own question bank: can the correct answer be guessed without subject knowledge — from its position or its length?
- **Teaching sequences instead of single slides.** Peer Instruction with a second round, question blocks with a shared scenario, three forms of group work including station work with a pairing history across the semester, discussion rounds with no devices at all, and semester playlists with Must, Should, and Could.
- **The data belongs to the instructor.** Raw data export with a codebook in every license, a read-only interface for Power BI, Excel, R, and Python, and local access for AI assistants via the Model Context Protocol (MCP) — with anonymization and a minimum group size, and without data passing through a vendor.
- **Others are ahead** in game shows and gamification, self-paced learning over several days, LMS integration with grade passback, add-ins for PowerPoint and video conferencing, SMS participation, and built-in AI. These are mostly deliberate decisions (Part 2), not omissions.

Figure	LehrPuls 1.0 (September 2026)	LehrPuls 1.17 (October 2026)
Question types	11	19, plus question blocks with a scenario
Features offered by at least seven of the ten services that LehrPuls lacked (excluding those left out by design, Part 2)	7	0
Operation	on your own network, no internet	on your own network, online via the relay, or both at once
Participants per session	250 (up to version 1.16)	500
Feature releases since the first comparison	—	17 (1.1 to 1.17)

2. What LehrPuls is built for — and what it deliberately is not

LehrPuls is built for **in-person teaching with questions that check understanding**: at the end of a chapter, to open a lesson, for Peer Instruction or group work. Questions live in a question pool with a topic tree, are put together into playlists for a single lesson or a whole semester, and are asked in sessions. Every session is archived; the analytics look across sessions, courses, and semesters.

There are four things LehrPuls deliberately does not do, because they run counter to its purpose:

- **No graded exams.** No proctoring, no identity verification, no grade calculation. Legally sound exams need an exam system.
- **No homework.** A session is tied to the moment; there are no deadlines. The follow-up (Part 3.7) lets participants review the resolved questions on their own device for up to fourteen days and practice them — without submitting new answers.
- **No learning management system integration.** No LTI, no user accounts. Questions can be imported from Moodle; that is the extent of the connection.
- **No game show.** No music, no point chasing, no permanently displayed leaderboard. A podium appears only at the push of a button.

3. What LehrPuls 1.17 can do — the features in detail

3.1 Nineteen question types

Question type	What participants do	Graded	Details
Multiple choice (one correct)	choose one answer	yes	explanation per answer, images as answers, shuffle per session, distractor analysis, "Ask for confidence"
Multiple choice (several correct)	choose several answers	yes	partial credit or "All or nothing"
Poll, Poll+	choose one or several options	no	images as options, an "Other" option with free text (up to 200 characters), result optionally shown on the wall while collecting, usable as a segment for breakdowns
Open question	free text up to 10,000 characters	by hand	"Numbers only" with a numeric keypad, sketch, up to five files or photos per answer, accepted answers with one-click grading, answer groups
Numeric	enter a number	yes	tolerance $\pm$ and unit, decimal comma or point by language
Estimate	estimate a number	no	median and reference value in the results
Ordering	sort items	yes	every device shuffles on its own, partial credit in the attainment, error rate per position
Matching	assign items to categories	yes	categories and items with images; labeling an image : numbered spots on an image serve as categories
Fill-in-the-gaps	fill gaps in running text	yes	alternative solutions per gap, gap with a choice list (<code>{{0hm ~ Volt ~ Ampere}}</code>), typed and choice gaps can be mixed, error rate per gap
Scale	choose one step	no	eleven templates (agreement, frequency, importance, school grade, recommendation ...), two to eight statements on the same scale , distribution, mean, and median per statement
Word cloud	one to five terms	no	terms can be hidden, cap on the number of terms on the wall (5 to 100)
Image question	place a point on an image	with target areas	heat map of all points, up to ten target areas
Ranking	order items by personal judgment	no	2 to 12 items, shuffled per device, the wall sorts by mean rank
Point budget	distribute a fixed number of points	no	10 to 1,000 points, sending only once all points are used, total, mean, and share per item
Idea wall	write short ideas	no	cards on the wall while collecting, grouping by drag and drop on the idea board, Put to a vote turns the groups into an instant poll
2x2 grid	place a point per item in a field with two axes	no	such as effort versus benefit; all points and the center per item, optionally while collecting; keyboard operable
Formula	type an expression	yes	shown as a formula on the device; every equivalent form counts — $(x+1)^2$ and x^2+2x+1 are equal
Notice	read, confirm, or answer yes/no	with two buttons	link with QR code and custom label, model solution after the work time

Question type	What participants do	Graded	Details
Question block with scenario	several sub-questions on a shared case	per sub-question	preamble and task, reveal all sub-questions at once, basis for groups and stations

Across all types: **Markdown and formulas (LaTeX, typeset with KaTeX)** in every text, images in five sizes, equal-ranking **language versions** per question (German and English, more languages via translation files), model solution with links and images, **note and planned duration** per question, **Peer Instruction** with a second round, switchable per question.

3.2 Writing and maintaining questions

- **Check while typing.** The question editor checks choice questions as you write: a bar shows how long the correct answers are relative to the wrong ones (good between 0.75 and 1.25). Hints point out absolute words only in wrong answers, correct statements bunched at the front, a model solution that names an answer by its letter, identical answers, a negation that is not highlighted, a missing translation, slide references, and years. The hints block nothing; whatever should deliberately stay is checked off as **Intentional**.
- **Review questions** walks through every question with hints in turn — with Back, Skip, and Save and next.
- **Reorder answers** rearranges the answers of many questions at once: in single choice, the correct answer ends up evenly spread and never more than twice in a row in the same position. A preview shows the figures before and after and the exceptions (such as number sequences); LehrPuls makes a backup first, and earlier answers stay correctly assigned.
- **Changing the correct answer later:** the prompt "Regrade past sessions?" explains what will change — or the question is saved as a new one. Manual grades always take precedence.
- **Import** from Moodle XML (including matching, tolerances, and embedded answers as fill-in-the-gaps; feedback per answer becomes the explanation), GIFT, Aiken, JSON, and **Excel, ODS, or CSV** with one row per question — with a template, one example per question type, and error messages with row numbers. In the other direction, LehrPuls exports questions as a table, as JSON, and as a package with images (.lpx).
- **Creating questions with AI — with no network traffic from the app.** Two ready-made prompts ("Question collection on a topic", "Course with playlist") go to an AI service of your choice; the response is pasted in, checked, and only then imported. From a lecture script, this produces a subtopic with questions per chapter, a playlist with Must, Should, and Could, and a group exercise with a scenario. A sample script with a sample result is included to try it out.
- **Printing:** worksheet, questions with solutions and explanations, playlists.
- **Organization:** topic tree of any depth, tags, notes with a sticky-note marker and filter, archiving instead of deleting, a **recycle bin** with an adjustable retention period (1 to 3,650 days), copying with all language versions.

3.3 Playlists and semester planning

- A **playlist** is the sequence of a lesson or a semester: questions, sections, and question blocks in one shared order, nested to any depth.
- **Must, Should, and Could** on every entry; freely combinable in the start dialog, with the planned duration of the selection.
- **Choose sections in the start dialog:** only "Protocols and services without group work" — the button states the restriction in plain words.
- **Question pool sections:** at the start, only a set number of randomly drawn questions go into the session; parallel groups get comparable but not identical sets.
- **Planned versus actual time** per question, section, and playlist; the time actually used can be adopted as the new planned time with one click.
- **Test run:** play through a playlist as a rehearsal; when it ends, everything created during it is discarded.
- **Playlist balance** across all sessions of a playlist, as a table and CSV.

3.4 The live session in the cockpit

- **Three columns:** What's next? — What's running? — Who's taking part? Switch **Simple | All** for a calm or a complete view.
- **One main button carries the question cycle** — show, close, reveal, next question; the space bar and a presentation clicker do the same. The button always names its next step.
- **Next from** playlist order, bookmarks, or random (until stopped, or 3, 5, 10 questions from a section); **Set as next** with a pin; **Ask again** appends a new run, and the first one is kept.
- **Instant question** without preparation, **Add questions** from the pool or from another playlist.

- **Timer** with a ring on the projector, "To zero", and **Lock**: when time runs out, the devices send their current answer on their own.
- **No reveal (survey)** for pure opinion polls; **Next without results** for a single case.
- **Response cards** per answer: exclude from the analysis, **manual grade** (0 to 100%) with a comment, answer group, "Show on the projector" — including images or sketches.
- **Close joining, remove a device, Large QR** (key Q) for the back rows and latecomers; the header warns before a session is full.
- **Pace feedback**: "too fast · just right · too slow" from the devices, visible only in the cockpit, without names, not stored.
- **Exit ticket** at the end of the lesson: three statements on pace, clarity, and usefulness plus "What are you taking away?" and "What remained unclear?" — comparable as a time series across sessions, courses, and semesters.
- **Comparison on the wall**: two questions that were asked, side by side — such as the same question at the start and the end of a lesson, or in two courses ("40% → 80%").
- **Podium** with or without names, only at the push of a button; each device sees only its own place.
- **Random wheel** with a fairness memory: anyone already drawn comes up again much less often.
- **Suspend and resume** over days and weeks — from the selected question, only open questions, or from the start; online, a suspended session keeps its join code for up to 365 days.
- **Notes during the lesson** on a question, section, question block, playlist, or topic ("explain this longer next time"), each dated.

3.5 Projector, control, overlay, and remote

- **Separate projector window** with QR code, address, code, number of participants joined, and a Wi-Fi QR code to connect; while a question is open, progress ("12 of 30") and a timer ring.
- **Results hidden until the reveal** by default, so nobody simply follows the majority; for opinion questions, **Show the result on the wall while collecting** turns on the growing chart per question.
- **Projector control**: an operable copy of the wall in the cockpit — scrolling, zoom up to 2,000 percent with panning, bringing an image, a formula, or a table up to full screen, sending the model solution to the wall or to the devices.
- **Recap and preview** (key B): bring an earlier question from the current playlist, from the archive of past sessions, or from the question bank to the wall without stopping the flow.
- **Overlay on your own presentation**: ⌘⇧L or Ctrl+Alt+L shows the join code and the running question on top of PowerPoint, Keynote, or a PDF viewer — even in full screen, first as a small card, as a large view on the second press. The presentation keeps the focus, and clickers keep working there. No add-in, no account.
- **Smartphone remote**: main button, paging, and reveal from your own smartphone, signed in with a one-time code from the cockpit.
- **Long content**: a reading limit, scrolling with Page ↑/↓, a separate page for long model solutions; images are never distorted.
- **Boards** for scenario, groups, stations, and breaks; a discussion slide for Peer Instruction.

3.6 Group work, Peer Instruction, and discussion

- **Peer Instruction** after Eric Mazur: round 1 in silence, a discussion slide with each person's own answer on the device, round 2, both rounds compared on the wall — and the learning gain per question in the analysis.
- **Three forms of group work**: all groups answer the same questions together; groups split the sub-questions of a question block; or **station work** — several question blocks in parallel, each group at its station, with an assignment board and swapped assignments in the next run.
- **Forming groups**: calculated from the course list, by hand, or by the participants themselves — even in anonymous sessions. Planning takes into account the **pairing history** of all earlier sessions of the course, so participants mix by themselves over the semester. Plans can be printed, named, and reused.
- **The group's status on every device**: when one member answers for the group, the others see the answer immediately along with who sent it; anyone typing at that moment loses nothing.
- **Discussion round with no devices**: the questions appear large on the wall, the instructor marks answers together with the audience (**plenary answer**), and the projector sets the room's gut feeling against the correct answer.
- **Group scores** in the analysis: group questions correct out of graded, plus the members' individual questions.

3.7 The participant app

- **In the browser, with no account and nothing to install**, on any current smartphone, tablet, or laptop; interface in the device language, content in the session's question language.

- **Four ways to join:** anonymous, pseudonym, with a name from the course list, **name + student ID** (only those who match the course list get in; the devices never see the list itself).
- **Switch devices with a QR code**, including answers and group; a personal ID for coming back.
- **Sketch** with pen, finger, or mouse (on the iPad, a resting hand does not interfere), **photos and files** as answers (HEIC becomes JPEG, large photos are scaled down), images enlarge with a tap.
- **Messages and questions:** to the instructor, to everyone, or to one's own group, optionally with a photo or PDF; messages and files from the instructor are received.
- **Recap** of the resolved questions with one's own answer, the correct answer, the model solution, and explanations, plus one's own score ("3 of 5 correct"); can be saved as a PDF.
- **Follow-up** for up to fourteen days: the recap including images in the device's browser storage, **practice without grading, save as a file** — nothing is kept on the relay.
- **Accessibility:** checked against every machine-testable rule of WCAG 2.2 AA and declared partially conformant (manual, chapter 16), keyboard operable, dark mode.

3.8 Questions wall and messages

- **Questions wall** with upvotes and **downvotes**; the wall sorts by approval minus downvotes, and heavily downvoted posts disappear beyond a selectable threshold.
- **Moderation** with approval before display, **labels** with a filter, a **word filter** for gross insults.
- **Audience per post:** to the instructor (no approval needed, for questions one would rather not ask in front of everyone), to everyone, to the group; **Reply** goes straight to the person who asked.
- **Send message** from the instructor to everyone, to individual groups, or to individuals — text, link, task, with attachments of up to 20 MB per file, even while a question is running.
- All questions are archived with the session.

3.9 Analytics

Seven tabs with a shared filter bar (period, course, topic as a subtree). Principles: no figure without an explanation of how it is calculated, no statement on a thin basis, and a **minimum size for distributions** (default 5) so that no conclusions can be drawn about individuals.

1. **Overview:** key figure tiles compared with the previous period, hint cards (discrimination below 0, questions never asked, playlists over plan), activity per month, strongest and weakest topics.
2. **Topics:** maturity (mean attainment) and coverage per subtree, heat map main topic versus month, trend per session.
3. **Times:** planned duration versus median working time, time hogs and quick ones, planning accuracy per playlist, time profile of a session.
4. **Questions:** the **quality map** — difficulty index P versus discrimination (upper-lower index with 27 percent groups) across all uses; lists "too easy", "too hard", "discrimination < 0", "dead distractors"; error rate per gap, item, and position; Peer Instruction round 1 versus round 2.
5. **Courses:** learning curve compared across courses, response rate over the session, **history and attendance per person** (without location tracking), and the exit ticket time series.
6. **Sessions:** archive with search; per session, analysis per question, **participants' scores** and group scores, individual answers with grade, comment, sketches, and files, the **longitudinal view** of the same question across all sessions, **breakdown by a poll** (segmentation), **correct by confidence**, questions from the audience, a report as PDF — also with all individual answers —, and saving all participants' files at once, anonymized if desired.
7. **Answer patterns:** hit rate without subject knowledge (always the first, always the longest, all but the last, all — versus rolling a die), position distribution, length ratio, list of questions with hints including print and CSV.

In addition: **exclude from the analysis** (a failed question or an answer sent blindly, reversible at any time), manual grades that take precedence over calculated ones, and answer groups for open answers with bars on the wall.

3.10 Export, read-only interface, and AI assistants

- **Raw data export** in long format as Excel (sheets Answers, Questions as a codebook, Sessions) or CSV, filtered by period, course, topic, or per session; the column names are a fixed contract. Participants and instructor can be anonymized separately, with a minimum size and rounded timestamps as protection when sharing. **In every license**, not just the most expensive plan.

- **Read-only interface** /api/v1: the tables sessions, fragen (questions), antworten (answers) plus ready-made figures fragen-kennzahlen (difficulty, discrimination, dead distractors), themen (maturity, coverage), and bilanz (scores) — as JSON or CSV for Power BI, Excel, R, and Python. Access keys with an expiry (1 to 90 days), read-only, by default only on this computer and anonymized; simple requests such as session_id=letzte (latest) or kurs=<name>. IT can block it with an environment variable.
- **Connecting an AI assistant (MCP)**: started with --mcp, LehrPuls answers requests from an AI assistant such as Claude Desktop via the Model Context Protocol — with the same key and the same anonymization as the interface. This makes it possible, for example, to analyze open answers with an AI of your own choice, without LehrPuls itself sending data to the internet.
- **Exchange format** .lpx/JSON for topics, questions, courses, and playlists, publicly documented; courses travel with the participants' IDs.

3.11 Operation, data, data protection, and license

- **Four ways to connect**: a laptop or smartphone hotspot (recommended, because campus Wi-Fi often isolates devices from each other), shared Wi-Fi, a mobile router, **online via the relay** — and since 1.17 **online with a room**: devices on the same network join directly, everyone else via the relay, in the same session; the projector shows two QR codes. A list of Wi-Fi networks in range, a self-test with your own smartphone, and step-by-step guides help with setup.
- **The relay** (relay.lehrpuls.com) only forwards: questions, answers, and names are end-to-end encrypted, images and files are stored encrypted alongside and deleted as soon as the session ends.
- **Up to 500 devices per session**, locally and online; in a load test, 500 devices were connected within half a second.
- **Data in your own data folder** (SQLite), optionally in OneDrive or a network folder; lecture hall computers get the folder from IT via an environment variable. Two data sets are detected and merged on request; **Back up database** puts the database, images, and license into one folder.
- **Data protection**: retention period for participant lists, a sample privacy notice for participants, recycle bin, an anonymous way to join with no personal reference at all.
- **macOS and Windows**, both signed; Windows installation also for all users and silently via parameter. Update notice, even when the program has been running for days, never during a session.
- **Appearance** light, dark, or match system; the projector and printouts always stay light.
- **Documentation**: manual (German and English, as PDF), quick reference, step-by-step picture guides for every task, bundled samples with all question types and analyzed sessions, and a changelog for every version.
- **License**: a one-time purchase per person, valid on all of their own computers and for the whole major version 1; **every feature in every license**. The trial version is complete and unlimited in time, with up to six participants per session.

4. Comparison by area

The information on the ten services comes from their public product, help, and pricing pages, checked on September 11 and 12, October 15, and October 28, 2026. Services change constantly; the current state at the vendor is what counts. Wooclap announced its acquisition of Vevox in September 2026; both services continue separately for now and therefore have their own columns.

Legend for the tables: ✓ available · 🟡 limited, partial, or only as a workaround · ✗ not available · € only in paid or higher plans · **by design** = a deliberate decision by LehrPuls (Part 2). Columns: Kahoot! · Menti · Wooclap · PollEv · Slido · AhaSl. · Partic. · Vevox · Socr. · Waygr. · **LehrPuls 1.17**.

4.1 Question types

Question type	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSl.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Multiple choice, one correct	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Multiple choice, several correct, with partial credit	🟡	🟡	✓	🟡	🟡	✓	✓	✓	🟡	✓	✓ or all-or-nothing
Poll, including multiple selection	✓	✓	✓	✓	✓	✓	✓	✓	🟡	✓	✓ with "Other"
Open question	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Short answer with automatic matching	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓ as fill-in-the-gaps
Number with tolerance	✓	✗	✓	✗	✗	✗	✓	✓	✗	✗	✓ with unit
Estimate (median, reference value)	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✓
Ordering with a solution	✓	✗	✓	✗	✗	✓	✓	✓	✗	✓ €	✓
Matching / categorizing	✗	✗	✓	✗	✗	✓	✗	✓	✗	✓ €	✓ also with images
Fill-in-the-gaps	✗	✗	✓	✗	✗	✓	✗	✗	✗	✓	✓
Gap with a choice list	✗	✗	🟡	✗	✗	✓	✗	✗	✗	✓	✓
Scale, one statement	✓	✓	✓	🟡	✓	✓	✓	✓	✗	✗	✓ eleven templates
Scale with several statements	✗	✓	✗	🟡	✗	✓	✗	✓	✗	🟡	✓ up to eight
Word cloud	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
Ranking without a solution	✗	✓	🟡	✓	✓	✓	✗	✓	✗	✗	✓
Point budget	✗	✓	✓	✗	✗	✓	✓	✗	✗	✗	✓
Image question: place a point	🟡	✓	✓	✓	✗	✓	✗	🟡	✗	✗	✓
Image question: correct area	✓	✗	✓	✓	✗	✗	✗	✓	✗	✓	✓ up to ten
Labeling an image	✗	✗	✓	✗	✗	🟡	✗	✗	✗	✓	✓
Images as answer options	✓	✓	✓	✓	✗	✓	✗	✓	✗	✓	✓
2x2 grid	✗	✓	🟡	✗	✗	✓	✗	✓	✗	✗	✓
Idea wall with grouping and voting	✓	🟡	✓	✗	✓	✓	✗	✗	✗	✗	✓
Sketch as an answer	✗	✗	✗	✗	✗	✓	✗	✗	✗	✓	✓
Photo or file as an answer	✗	✗	🟡	✗	✗	🟡	✗	✗	✗	🟡	✓ up to five
Audio or video answer	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
Formula input with equivalence recognition	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓ €	✓
Formulas (LaTeX) in question and answers	✗	✗	✗	✓	✗	✓	✓	✓	✓	🟡	✓
Ask for confidence in the answer	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓
Poll as a segment (segmentation)	✗	🟡	✗	✗	✗	✗	✗	✓	✗	✗	✓
Question block with a shared scenario	✗	✗	✗	✗	✗	✗	✗	✗	✗	🟡	✓
Peer Instruction with two rounds	✗	✗	✗	✗	✗	✗	🟡	🟡	✗	✗	✓
Notice with link, QR code, and response buttons	🟡	🟡	🟡	✗	✗	🟡	✗	🟡	✗	✗	✓
Highlighting text passages	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
Interactive video	🟡	🟡	🟡	✗	✗	🟡	✗	✗	✗	✓	✗

4.2 Projector, presentation, and control

Feature	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSI.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Projector view with code and QR always visible	✓	✓	✓	🔴	✓	✓	✓	✓	🔴	✓	✓ and Wi-Fi QR
Presenter view (next question, notes, controls)	×	✓ €	✓	×	🔴	✓	×	🔴	×	×	✓
Operable copy of the wall with zoom	×	×	×	×	×	×	×	×	×	×	✓
Hide results until the reveal	×	✓	✓	✓	🔴	✓	✓	✓	✓	×	✓ default
Growing chart while collecting	🔴	✓	✓	✓	✓	✓	✓	✓	✓	🔴	✓ switch per question
Comparing two runs (before – after)	×	✓	✓	×	×	×	✓	✓	×	×	✓
Show an earlier question from the archive without leaving the flow	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	✓
Several questions open at once (block, stations)	×	🔴	🔴	🔴	🔴	🔴	🔴	×	×	🔴	✓
Control by clicker and keyboard	🔴	🔴	🔴	🔴	🔴	🔴	✓	🔴	×	🔴	✓
Smartphone as a remote	×	✓ €	🔴	✓	×	✓	×	🔴	×	×	✓
Overlay on another presentation without the cloud	×	×	×	🔴	×	×	✓ €	×	×	×	✓ overlay
Add-in for PowerPoint, Keynote, or Google Slides	✓	✓	✓	✓	✓	✓	×	✓	×	🔴	×
Integration with Teams, Zoom, or Webex	✓	✓	✓	✓	✓	✓	×	✓	×	🔴	🔴 relay and window sharing
Random wheel	×	×	✓	×	×	✓	×	🔴	×	×	✓ with fairness memory
Leaderboard / podium	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	🔴 podium on demand
Emoji reactions	✓	×	×	×	✓	✓	×	×	×	×	×
Discussion round without devices (plenary answer)	🔴	×	×	×	×	×	×	×	×	🔴	✓
Boards for scenario, groups, and breaks	×	🔴	🔴	×	×	🔴	×	🔴	×	×	✓

4.3 Live operation, groups, and audience questions

Feature	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSI.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Questions wall with upvoting	✓	✓	✓	✓	✓	✓	✓	✓	×	×	✓
Approval before display	×	✓ €	✓ €	✓	✓	✓ €	✓	✓ €	×	×	✓
Downvotes, labels, threshold	×	×	🔴	🔴	🔴	×	✓	🔴	×	×	✓
Word filter against insults	×	×	×	×	✓	✓	×	✓	×	×	✓
Written reply to the person asking	×	×	×	×	✓	×	✓	✓	×	×	✓
Messages and files to everyone, groups, individuals	×	×	×	×	×	×	×	🔴	×	×	✓
Participant posts with a photo or PDF	×	×	🔴	×	×	×	×	×	×	×	✓
Close joining	✓	×	×	🔴	×	×	×	🔴	×	×	✓
Remove a single device	✓	×	×	×	×	×	×	×	×	×	✓
Group work with a group answer	🔴	×	🔴	×	×	🔴	×	🔴	🔴	🔴	✓ three forms
Station work, group planning across the semester	×	×	×	×	×	×	×	×	×	×	✓
Instant question without preparation	🔴	🔴	🔴	✓	✓	🔴	✓	✓	✓	×	✓
Add questions during the session	🔴	🔴	🔴	✓	🔴	🔴	🔴	🔴	×	×	✓
Suspend and resume over days	🔴	🔴	🔴	🔴	🔴	✓	✓	🔴	✓	✓	✓
Manual grading during the session	×	×	×	×	×	🔴	×	×	×	×	✓
Exclude an answer or question from the analysis	×	×	×	×	×	×	×	×	×	×	✓
Paper mode without participant devices	🔴	×	×	×	×	×	×	×	×	✓	🔴 discussion round

4.4 Analytics and reports

Feature	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSI.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Report per session with distribution per question	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Feature	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSI.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Results per person	✓	✓ €	✓	✓	✓	✓	🟡	✓	✓	✓	✓
Analysis across several sessions and semesters	🟡	🟡	🟡	✓	🟡	🟡	×	🟡	×	✓	✓
Analysis by topic (topic tree)	×	×	×	×	×	×	×	×	×	🟡	✓
Learning curve per course	🟡	×	×	🟡	×	×	×	×	×	✓	✓
Time analysis, planned versus actual	🟡	×	×	×	×	🟡	×	×	×	🟡	✓
Attendance	×	🟡	✓	✓	×	×	×	✓ €	×	×	✓ without location tracking
Manual grading afterward	🟡	×	🟡	🟡	×	✓	×	×	🟡	✓	✓ with comment
Report as PDF	🟡	✓	✓	✓	✓	🟡	×	×	✓	×	✓
Export to Excel or CSV	✓ €	✓ €	✓ €	✓ €	✓ €	✓ €	✓ €	✓ €	✓	✓	✓ every license
Long format with codebook, filter by course, topic, time	×	×	×	×	×	×	×	×	×	×	✓
Anonymized export with minimum size	×	🟡	×	×	×	×	×	×	×	×	✓
Recap for learners	×	×	✓	✓	✓	✓	×	🟡	✓	✓	✓ without an e-mail address
Audience questions archived per session	×	✓	✓	×	✓	✓	✓	✓	×	×	✓

4.5 Question analysis and test theory

Feature	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSI.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Share correct per question	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ as difficulty index
Discrimination per question	×	×	×	×	×	×	×	×	×	×	✓
Distractor analysis	×	×	×	×	×	×	×	×	×	×	✓
Quality map across all uses of a question	×	×	×	×	×	×	×	×	×	×	✓
Longitudinal view of the same question across sessions	🟡	🟡	🟡	🟡	×	×	×	🟡	×	🟡	✓ without personal reference
Error rate per gap, item, position	×	×	🟡	×	×	×	×	×	×	🟡	✓
Peer Instruction learning gain, round 1 → 2	×	×	×	×	×	×	🟡	🟡	×	×	✓
Check whether the solution can be guessed	×	×	×	×	×	×	×	×	×	×	✓
Quality hints while writing the question	×	×	×	×	×	×	×	×	×	🟡	✓
Flag for difficult questions	✓	×	×	×	×	✓	×	×	🟡	🟡	✓
Breakdown by a preceding question	×	✓ €	×	×	×	×	×	✓	×	×	✓
Grouping open answers	×	✓	✓	×	✓	🟡	×	✓	×	🟡	🟡 by hand, AI via MCP

4.6 Interfaces, import, and integration

Feature	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSI.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Read-only results interface for every instructor	×	🟡 €	×	×	🟡 €	🟡	🟡	🟡 €	×	×	✓ every license
Access for AI assistants (MCP)	🟡 creation only	🟡 creation only	×	×	×	✓	×	×	×	🟡	✓ local, with results data
Learning platform integration (LTI) with grade passback	✓ €	✓	✓ €	✓ €	×	🟡	🟡	✓	×	✓	×
Sign-in with the university account (SSO)	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	×	🟡	×
Import questions from a spreadsheet	✓	×	✓	✓	×	✓	✓	✓	✓	✓	✓ Excel, ODS, CSV
Import from Moodle, GIFT, Aiken	×	×	🟡	×	×	×	×	×	×	×	✓
Questions from documents via AI	✓	✓	✓	✓	×	✓	×	✓	×	✓	🟡 prompt route, no network traffic
Export questions and import them again	🟡	🟡	🟡	🟡	×	🟡	✓	✓	🟡	×	✓
Import participant lists	🟡	×	🟡	✓	×	×	×	🟡	✓	🟡	✓

Feature	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSl.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Built-in AI with data sent to the vendor	✓	✓	✓	✓	✓	✓	×	✓	×	✓	×
Open source or self-hostable	×	×	×	×	×	×	✓	×	×	×	🔗 runs locally without a server

4.7 Participant side

Feature	Kahoot!	Menti	Wooclap	PollEv	Slido	AhaSl.	Partic.	Vevox	Socr.	Waygr.	LehrPuls
Join without an account or app	✓	✓	✓	✓	✓	✓	✓	✓	✓	🔗	✓
Anonymous, pseudonym, or name selectable per session	🔗	🔗 €	✓	🔗 €	🔗	🔗	🔗	🔗	🔗	×	✓ four ways
Join only via the course list	×	×	🔗	🔗 €	🔗	×	🔗	🔗	✓	🔗	✓ without an account
Switching devices mid-session	✓	×	×	🔗	×	🔗	×	×	✓	🔗	✓ via QR code
Participation by SMS	×	×	✓	✓	×	×	×	×	×	×	×
Group's status on every device	×	×	×	×	×	×	×	×	×	×	✓
Recap with one's own answer and the solution	×	×	✓	✓	✓	✓	×	🔗	✓	✓	✓ up to 14 days on the device
Answering asynchronously over days	✓	✓	✓	✓	✓	✓	🔗	✓	✓	✓	×
Accessibility statement (WCAG)	🔗	🔗	🔗	🔗	🔗	×	✓	🔗	×	✓	✓ WCAG 2.2 AA, partially conformant
Content in several language versions	🔗	🔗	🔗	🔗	🔗	🔗	🔗	🔗	🔗	✓	✓ equal-ranking per question

5. Prices, operation, and data protection

Smallest paid plan for one instructor in education with annual billing, according to the vendor's pricing page on October 28, 2026:

Service	Based in	Smallest education plan per year	Free plan	Export in the free plan
Kahoot!	Norway	€36 (Kahoot!+ Bronze, up to 50 participants)	10 participants per game, multiple choice only	no
Mentimeter	Sweden	\$108 (Basic)	50 participants per month	no
Wooclap	Belgium	€84 plus VAT (Basic)	5 questions per month	no
Poll Everywhere	USA	\$108 (Lecture, 700 responses per poll)	40 responses per poll	yes
Slido	Slovakia (Cisco)	€60 plus VAT (Engage, up to 500 participants)	100 participants, 3 polls	no
AhaSlides	Singapore	€33 (Edu Small, up to 50 participants)	50 participants	no (from €87)
Particify	Germany	€144 plus VAT per account (Pro, from 5 accounts)	200 participants per room	no
Vevox	United Kingdom (part of Wooclap since 09/2026)	€101.40 (Starter, up to 250 participants)	100 participants	no
Socrative	Canada / USA	\$120 (Essentials, up to 50 students)	50 students, 5 quizzes, 1 room	yes
Wayground	USA	no public individual price	100 students, 20 activities	not stated
LehrPuls	Austria	€79 one-time (up to 500 participants)	trial version, complete, up to 6 participants	yes, in every license

LehrPuls costs **€79 one-time** per person for instructors at universities, schools, and public or non-profit educational institutions (from 5 seats €69, from 25 seats €59, from 100 seats €49), and €149 (down to €89) for continuing education and companies — each including 20% Austrian VAT; businesses with a valid VAT ID pay the net amount. The license covers all updates of major version 1. There is no free plan with limited features, but a complete trial version, unlimited in time, with up to six participants per session. The smallest annual plans

of the other services usually limit participants (often to 50) or the export; compared with plans without such limits, the one-time purchase pays for itself after one to three years.

Operation and data protection. On your own network, LehrPuls creates no data flow to any vendor: questions, answers, course lists, and analytics live only in the instructor's data folder. For the online route, the relay only forwards encrypted messages; it cannot read questions, answers, or names, and it deletes images and files when the session ends. The cloud services, by contrast, store all content with the vendor; several host in the EU and offer a data processing agreement, some host in the USA. Particify hosts in Germany but offers the data processing agreement only from the Pro plan; it is open source and can be run by a university itself — operation then lies with its IT.

6. Where other services are ahead

A fair analysis also names the areas where LehrPuls does not keep up — mostly by design:

- **Game show and gamification** (Kahoot!, Wayground, Socrative): music, point chasing, game modes, avatars, large public question banks. LehrPuls aims at subject-matter feedback; there is only a podium at the push of a button.
- **Self-paced learning** (all ten to varying degrees): homework with deadlines, self-guided quizzes, spaced repetition. LehrPuls offers only a recap and a follow-up without grading.
- **Learning platforms and grades** (including Kahoot!, Mentimeter, Wooclap, Poll Everywhere, Vevox, Wayground): LTI with grade passback, sign-in with the university account. LehrPuls needs no account and passes on no grades.
- **Add-ins and video conferencing** (most cloud services): polls directly in PowerPoint, Google Slides, Teams, or Zoom. Instead, LehrPuls offers the overlay on any presentation and the online route via the relay.
- **Built-in AI** (almost all cloud services): questions from uploaded documents, AI grouping of open answers. LehrPuls sends nothing to the internet from the app; AI is available through a prompt route when creating questions and through MCP for analysis — with a service of your own choice.
- **Participation by SMS** (Poll Everywhere, Wooclap), **audio and video answers, interactive videos, and highlighting text passages** (Wayground), **emoji reactions** (Kahoot!, Slido, AhaSlides).
- **Very large events:** some services accept several thousand participants in higher plans; LehrPuls accepts up to 500 devices per session.
- **Zero cost:** Particify's basic plan is free for good (up to 200 participants per room, data processing agreement only from Pro) and is already installed at many universities; the other services also have free plans, usually with tight participant limits.

7. Who LehrPuls is right for

LehrPuls fits when ...

- **understanding is to be measured** and the results should carry across the semester — with figures that show which questions work and which topics have sunk in;
- **data protection without contractual overhead** is required: no accounts, no cloud, no data processing on your own network;
- the **internet in the lecture hall is unreliable** or campus Wi-Fi isolates devices from each other — the laptop's hotspot is enough;
- **teaching sequences** are needed: Peer Instruction, case work with a scenario, groups and stations;
- **formula- and number-heavy subjects** are taught — LaTeX, tolerances, units, formulas with equivalence recognition;
- the instructor wants to **buy once and keep the data**.

A cloud service fits better when game shows, homework over several days, grades in the learning platform, or polls directly inside PowerPoint and Teams are the priority.

8. Sources and notes

- **LehrPuls:** program, manual, and changelog of version 1.17.0 (lehrpuls.com, "What's new"). All features described are included in every license.
- **Competitors:** publicly available product, help, pricing, and changelog pages of the ten vendors, checked on September 11 and 12, October 15, and October 28, 2026. Where a help page could not be retrieved automatically, the information relies on product and blog pages of the same vendor.
- The rating "●" covers cases in which a feature exists only in part, only in certain plans, only for administrators, or only as a workaround. Prices are rounded, without special terms for institutions, in the currency stated by the vendor.

- All information without guarantee; vendors' features and prices may change at any time. We gladly accept notes on outdated or incorrect information at office@lehrpuls.com and correct them promptly.
- Kahoot!, Mentimeter, Wooclap, Poll Everywhere, Slido, AhaSlides, Particify, Vevox, Socrative, and Wayground are trademarks or product names of their respective owners. This analysis is a comparison from the perspective of the maker of LehrPuls and is not affiliated with the vendors named.

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