

Research-Based Learning (RBL) Tools

The following table is the result of an exploratory study aiming at identifying didactically suitable digital tools for individual and group RBL scenarios in higher education (see reference).

The table structure relates to the RBL-Tools-[mind map](#) in the way that it groups certain tools according to category (in different colors in the table). The mind map that links RBL phases and tools can be found [here](#).

Reference:

Marín, V. I. (2019). [Research-based Learning enhanced by Technology in Higher Education: a Comparative Analysis of Tools](#). In: E. Vaquero, E. Brescó, F., J. L. Coiduras, & F. X. Carrera (Ed.): *EDUcación con TECnología : un compromiso social. Iniciativas y resultados de investigaciones y experiencias de innovación educativa* (pp. 459-471). Lleida: Edicions de la Universitat de Lleida; Palma de Mallorca: Asociación EDUtec. doi: [10.21001/edutec.2019](#)



TOOL	<u>LINO.IT</u>	<u>NOTEAPP</u>	<u>PADLET</u>	<u>CMAPTOOLS</u>	<u>MINDOMO</u>	<u>MINDMAPFREE</u>	<u>POPPLLET</u>
Tool Category	Online pinboard tools	Online pinboard tools	Online pinboard tools	Online/Offline concept mapping tools	Online/Offline concept/mind mapping tools	Online mind mapping tools	Online mind mapping tools
Compatible Platform	Web, Smartphone	Web	Web, Smartphone & Tablet (iOS, Android, Kindle)	Windows, macOS, Linux, iPad	Windows, macOS, Linux, Smartphone/Tablet	Web	Web, iPad
Location of server	Tokyo, USA, GB, Singapore	Canada	USA	Integrated; public: USA	Germany, Ireland	USA	USA, Italy, Sweden
Language	EN/JA	EN	EN & 28 more	EN & 17 more	EN & 15 more	EN	EN
Free	Yes	Partially (Paid: unlimited boards, 10 collaborators and 5 GB storage)	Partially (Paid - Pro: Unlimited Padlets, 250 Mb files, no ads, priority support, folders)	Yes	Partially (Paid - Premium: Unlimited MindMaps, 1 GB storage, 8 export formats, 6 import formats, save on Dropbox and Gdrive, desktop version included)	Yes	Partially (Paid: Unlimited Popplets)
Limitations of free version	-	Freemium: 1 board, 2 collaborators & 100 Mb	Freemium: 3 Padlets, 10 Mb files	-	Freemium: 3 MindMaps, Integration of other tools only with paid access	-	10 Popplets
License	Not specified	Not specified	Not specified	Free for commercial use	Not specified	Free for educational use	Proprietary license
Connection with other tools	-	-	Twitter, Facebook, and Google Classroom	CmapServer, Cmap Cloud	Paid: Office365, Dropbox, Google Drive, and LMSs Integration	Cloud Storage, Dropbox, and Google Drive	Vimeo
Type of data	Not exportable	Exportable as Excel	Exportable as image, PDF, CSV, Excel	Exportable as image, PDF, Postscript, SVG, CXL, Web-Site and more	Exportable as MOM und TXT; Import from various tools	Exportable as image	Exportable as PDF, JPEG, and hi res PNG

TOOL	<u>PEARLTREES</u>	<u>EDUTAGS</u>	<u>MENDELEY</u>	<u>SCOOP.IT</u>	<u>DIIGO</u>	<u>ANNOTATE</u>
Tool category	Online collaborative curation tools	Online collaborative curation tools	Online collaborative curation tools	Online collaborative curation tools	Online collaborative curation/annotation tools	Online collaborative annotation tools
Compatible platform	Web, Smartphone	Web	Web, Smartphone, Windows, macOS, Linux	Web, Smartphone	Web, Smartphone	Web
Location of server	France	Germany	USA, UK, Germany, India, and more	USA	USA	UK
Language	EN/FR	DE	EN	EN	EN	EN
Free	Partially (Paid - Personal: 10 GB storage, private & offline mode, full customization, Teacher prizes available)	Yes	Yes (institutional subscription provides more group possibilities)	Partially (Paid - Pro: Unlimited Scoops, custom templates, 5 social channels, support)	Partially (Paid - Standard: No Ads, Unlimited Cloud Bookmarks, Webpage and PDF Highlights, Image Storage)	Partially (Paid - Standard: Unlimited storage, in-document collaboration, at minimum of 3 users)
Limitations of free version	Freemium: 1 GB storage	-	-	Freemium: 1 topic page, max. 50 Scoops, 1 user, 1 social channel, no WordPress integration	Freemium: Ads, 500 Cloud Bookmarks, 100 Webpage and PDF Highlights	Freemium: 30 MB storage, workgroups, file sharing, in-document collaboration (max. 3 users)
License	Not specified	Open Source	Proprietary licence	Proprietary licence	Not specified	Free for commercial use
Connection with other tools	Web Clipper, Facebook/Twitter	-	Scopus, ORCID, Web Importer, Citation Plugin	Scoop.it bookmarklet, WordPress, Twitter, Facebook, LinkedIn, ...	Diigolet, Facebook, Twitter, Google+	Google Drive, Dropbox
Type of data	Exportable as HTML and RDF	Not exportable	Exportable as BibTeX, RIS, EndNote XML	Not exportable but can be shared on various social media pages	Not exportable but can be shared on various social media pages and as links	Exportable as PDF and CSV

TOOL	<u>CLASSROOM SALON</u>	<u>NOWCOMMENT</u>	<u>HYPOTHES.IS</u>	<u>YAMMER</u>	<u>SLACK</u>	<u>COURSENETWORKING</u>
Tool category	Online collaborative annotation tool	Online collaborative annotation tools	Online collaborative annotation tools	Online group management tools	Online group management tools	Online group management tools
Compatible platform	Web	Web	Web	Web, Smartphone	Web, Smartphone	Web, Smartphone
Location of server	USA	USA	USA	-	USA	USA
Language	EN	EN	EN	EN/DE & 27 more	EN/DE & 4 more	EN
Free	Yes	Yes	Yes	Yes, but only if Office 365 is owned, too	Partially (Paid – teams & companies: More support, up to 15 ppl. for video conference, 10 GB storage for each member)	Yes
Limitations of free version	-	-	-	-	Freemium: Test for unlimited time, up to 10 Apps, 1-on-1 video conference, 5 GB overall storage	-
License	Free for personal, non-commercial use	Free for personal, non-commercial use	Open Source	Free for personal, non-commercial use	Proprietary license	Proprietary license
Connection with other tools	YouTube	-	PDF & Web Annotation Plugin for Chrome	Office 365	Integration of Apps from Office 365, Atlassian, and more	Merlot, YouTube, Google Drive
Type of data	Exportable as CSV, shareable via link	Exportable in uploaded format, in HTML, printed to PDF, and EPUB	Not exportable but can be integrated in websites like WordPress	Exportable as Word, PowerPoint, Excel, ...	Data uploaded can be downloaded as such; external links can be created	Data uploaded can be downloaded as such

TOOL	<u>TWITTER</u>	<u>RESEARCHGATE</u>	<u>QUORA</u>	<u>WHITEBOARDFOX</u>	<u>AWW BOARD</u>	<u>TLK.IO</u>
Tool category	Online community tools	Online community tools	Online community tools	Online whiteboard tools	Online whiteboard tools	Online communication tools
Compatible platform	Web, Smartphone	Web	Web	Web	Web	Web
Location of server	Worldwide (USA, Ireland, ...)	Canada	Worldwide	UK	USA	USA
Language	EN & 15 more	EN/DE	EN/DE & 7 more	EN	EN	EN
Free	Yes	Yes	Yes	Yes	Partially (Paid - Teacher: Unlimited premium boards and participants, PDF download without watermark, PDF/PPT upload, managing participants' rights, no ads, Email support)	Yes
Limitations of free version	-	-	-	-	Freemium: Basic tools, Board sharing, Basic chat; limited boards and participants	-
License	Open Source	Not specified	Not specified	Not specified	Free for personal, non-commercial transitory viewing only	Not specified
Connection with other tools	Periscope	LinkedIn, Facebook, Google+	LinkedIn, Facebook, Twitter	-	Google Classroom	Facebook, Twitter
Type of data	Not exportable but can be integrated in various websites	Not exportable	Not exportable	Exportable as Image and can be shared via link	Exportable as Image and PDF	Not exportable, but can be embedded in Websites

TOOL	WHEREBY	TRELLO	GANTTER	TRICIDER	DOTSTORMING	ALL OUR IDEAS
Tool category	Online communication tools	Online group/project work tools	Online group/project work tools	Online voting tools	Online voting tools	Online voting tools
Compatible platform	Web, Smartphone	Web, Smartphone	Web	Web	Web	Web
Location of server	USA, Norway, Sweden, Ireland	USA	USA	USA, Germany	Canada	USA
Language	EN	EN/DE & 19 more	EN/DE & 21 more	EN/DE/ES	EN	EN/DE & 17 more
Free	Partially (Paid - Pro: 10 rooms, all free features, plus 12 participants, PRO screen and full screen sharing, custom branding)	Partially (Paid - Business: All free features, premium Power-Ups, file size up to 250 MB, more options in managing participants' rights, more security and control, more individuality, premium support)	No (\$5/month/user - for any Ganttter edition)	Yes	Partially (Paid - Gold: Free features, unlimited topics, passwords, indiv. themes & backgrounds)	Yes
Limitations of free version	Freemium: 1 room & 4 ppl., custom URL, limited screen sharing, SSL secure video chat	Freemium: Unlimited Boards, lists, maps, participants, checklists, and attachments; 1 Power-Up per Board, up to 10 MB file size	30-day-free-trial	Different options for activities with and without registration	Freemium: Limited to 5 topics,	-
License	Free for personal, non-commercial use	Proprietary license	Proprietary license	Not specified	Not specified	Open Source
Connection with other tools	-	One each free board, several for paid (Google Drive, ...)	All Ganttter tools	Facebook, Twitter, LinkedIn	-	Google Analytics
Type of data	Not exportable	Exportable as CSV and JSON	Exportable as MS project, local Ganttter file, CSV	Can be embedded in websites	Exportable as Excel sheet	Exportable as CSV, can be embedded in websites

TOOL	<u>MENTIMETER</u>	<u>ANSWERGARDEN</u>	<u>CRYPTPAD</u>	<u>MEETINGWORDS</u>	<u>ETHERPAD</u>
Tool category	Online voting tools	Online voting tools	Online collaborative writing tools	Online collaborative writing tools	Online collaborative writing tools
Compatible platform	Web	Web, iPad	Web	Web	Web
Location of server	USA, Germany, Sweden, France	-	-	USA	-
Language	EN	EN	EN/DE & 7 more	EN	EN/DE & 50+ more
Free	Partially (Paid – Ed. Basic: Free features, unlimited questions and Quizzes per presentation, import from PowerPoint and Google, own "your" data)	Yes	Partially (Paid - Personal: 5 GB storage, unlimited pads, support)	Yes	Yes
Limitations of free version	Freemium: 2 questions + 5 Quizzes per presentation, unlimited audience size, core question types, Q&A, image and PDF export	-	Freemium: Up to 50 MB storage	-	-
License	Proprietary license	Not specified	Not specified	Open Source	Open Source
Connection with other tools	PowerPoint Plugin (Office 365)	-	-	-	-
Type of data	Exportable as Image and PDF (and Excel when paid)	Exportable as Image & CSV, to Wordle and Tagxedo; share as QR code	Exportable as PDF	Exportable as HTML, Plain text and Bookmark file	Exportable as Etherpad, HTML, Text File, Microsoft Word, PDF, and ODF

