

Using Electroencephalography to Measure Cognitive Load

Educational Psychology Review

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Understanding Engineering Students' Stress and Emotions during an Introductory Engineering course.. , 2015, , 26.1622.1.		4
2	A Theoretical Analysis of How Segmentation of Dynamic Visualizations Optimizes Students' Learning. Educational Psychology Review, 2010, 22, 411-423.	5.1	108
3	Cognitive Load Theory: Advances in Research on Worked Examples, Animations, and Cognitive Load Measurement. Educational Psychology Review, 2010, 22, 375-378.	5.1	50
4	The Role of Working Memory in Multimedia Instruction: Is Working Memory Working During Learning from Text and Pictures?. Educational Psychology Review, 2011, 23, 389-411.	5.1	49
5	Spectral EEG features for evaluating cognitive load. , 2011, 2011, 3841-4.		29
6	Measuring Cognitive Workload with Low-Cost Electroencephalograph. Lecture Notes in Computer Science, 2011, , 568-571.	1.0	26
7	Classification of Working Memory Load Using Wavelet Complexity Features of EEG Signals. Lecture Notes in Computer Science, 2012, , 692-699.	1.0	7
8	Brains and Games. Organizational Research Methods, 2012, 15, 522-552.	5.6	25
9	Explaining the segmentation effect in learning from animations: The role of pausing and temporal cueing. Computers and Education, 2012, 59, 274-280.	5.1	89
10	Adaptive training using an artificial neural network and EEG metrics for within- and cross-task workload classification. NeuroImage, 2012, 59, 48-56.	2.1	125
11	Neural Information Processing. Lecture Notes in Computer Science, 2012, , .	1.0	1
12	Encoding of Physics Concepts: Concreteness and Presentation Modality Reflected by Human Brain Dynamics. PLoS ONE, 2012, 7, e41784.	1.1	14
13	Online discussion compensates for suboptimal timing of supportive information presentation in a digitally supported learning environment. Educational Technology Research and Development, 2012, 60, 193-221.	2.0	31
14	Estimating cognitive workload using wavelet entropy-based features during an arithmetic task. Computers in Biology and Medicine, 2013, 43, 2186-2195.	3.9	90
15	A novel EEG for alpha brain state training, neurobiofeedback and behavior change. Complementary Therapies in Clinical Practice, 2013, 19, 114-118.	0.7	41
16	EEG-based fuzzy cognitive load classification during logical analysis of program segments. , 2013, , .		13
17	Evaluation of Different Onscreen Keyboard Layouts Using EEG Signals. , 2013, , .		11
18	Application Strategies for Neuroscience in Information Systems Design Science Research. Journal of Computer Information Systems, 2013, 53, 1-13.	2.0	44

#	ARTICLE	IF	CITATIONS
19	Measuring the impact of subtitles on cognitive load. , 2013, , .		56
20	Integrative strategy. , 0, , 145-192.		0
22	Cognitive state monitoring and the design of adaptive instruction in digital environments: lessons learned from cognitive workload assessment using a passive brain-computer interface approach. Frontiers in Neuroscience, 2014, 8, 385.	1.4	90
23	Assessing real-time cognitive load based on psycho-physiological measures for younger and older adults. , 2014, , .		24
24	Cognitive load measurement - A methodology to compare low cost commercial EEG devices. , 2014, , .		20
25	Learning from observing hands in static and animated versions of non-manipulative tasks. Learning and Instruction, 2014, 34, 11-21.	1.9	57
26	Cognitive Load Theory: A Broader View on the Role of Memory in Learning and Education. Educational Psychology Review, 2014, 26, 191-195.	5.1	85
27	The effects of verbally redundant information on student learning: An instance of reverse redundancy. Computers and Education, 2014, 76, 199-204.	5.1	21
28	Interactive Strategy-Making: Combining Central Reasoning with ongoing Learning from Decentralised Responses. Journal of General Management, 2015, 40, 69-88.	0.8	13
29	A comparison of brain regions based on EEG during multimedia learning cognitive activity. , 2015, , .		2
30	A statistical analysis on learning and non-learning mental states using EEG. , 2015, , .		2
31	Validation of stimulus for EEG signal based cognitive load analysis. , 2015, , .		5
32	Pupil Dilation and EEG Alpha Frequency Band Power Reveal Load on Executive Functions for Link-Selection Processes during Text Reading. PLoS ONE, 2015, 10, e0130608.	1.1	66
33	Measuring cognitive load during simulation-based psychomotor skills training: sensitivity of secondary-task performance and subjective ratings. Advances in Health Sciences Education, 2015, 20, 1237-1253.	1.7	34
34	Beyond Subjective Self-Rating: EEG Signal Classification of Cognitive Workload. IEEE Transactions on Autonomous Mental Development, 2015, 7, 301-310.	2.3	87
35	Vector Cryptography System: An Approach for the Analysis of Linear Arithmetic Spaces. , 2015, , .		0
36	Single trial prediction of normal and excessive cognitive load through EEG feature fusion. , 2015, , .		20
37	The evolution of cognitive load theory and its application to medical education. Perspectives on Medical Education, 2022, 4, 119-127.	1.8	182

#	ARTICLE	IF	CITATIONS
38	Artifact Removal from EEG Signals Recorded Using Low Resolution Emotiv Device. , 2015, , .		8
39	The Effect of Using a Talking Head in Academic Videos: An EEG Study. , 2015, , .		6
40	Measuring cognitive load with subjective rating scales during problem solving: differences between immediate and delayed ratings. Instructional Science, 2015, 43, 93-114.	1.1	130
41	The Rhythm Method: A New Method for Measuring Cognitive Loadâ€”An Experimental Dualâ€”Task Study. Applied Cognitive Psychology, 2015, 29, 232-243.	0.9	62
42	Voice source under cognitive load: Effects and classification. Speech Communication, 2015, 72, 74-95.	1.6	24
43	The potential relevance of cognitive neuroscience for the development and use of technology-enhanced learning. Learning, Media and Technology, 2015, 40, 131-151.	2.1	35
44	Modelling Determinants for the Integration of Web 2.0 Technologies into Hospitality Education: A Taiwanese Case. Asia-Pacific Education Researcher, 2015, 24, 625-633.	2.2	7
45	Optimizing Instruction for Learning Computer Programming â€” A Novel Approach. Communications in Computer and Information Science, 2015, , 128-139.	0.4	4
46	Input modality and working memory: Effects on second language text comprehension in a multimedia learning environment. System, 2015, 55, 63-73.	1.7	29
47	The reverse modality effect: Examining student learning from interactive computerâ€”based instruction. British Journal of Educational Technology, 2015, 46, 123-130.	3.9	18
48	Example-based learning: comparing the effects of additionally providing three different integrative learning activities on physiotherapy intervention knowledge. BMC Medical Education, 2015, 15, 37.	1.0	21
49	Analyzing elementary cognitive tasks with Bloom's taxonomy using low cost commercial EEG device. , 2015, , .		4
50	Time-Frequency Methodologies in Neurosciences. , 2016, , 915-966.		2
51	Augmenting Instructional Animations with a Body Analogy to Help Children Learn about Physical Systems. Frontiers in Psychology, 2016, 7, 860.	1.1	8
52	Foundations of Augmented Cognition: Neuroergonomics and Operational Neuroscience. Lecture Notes in Computer Science, 2016, , .	1.0	1
53	HCI International 2016 â€” Posters' Extended Abstracts. Communications in Computer and Information Science, 2016, , .	0.4	3
54	Job Analysis and Cognitive Task Analysis in National Security Environments. Lecture Notes in Computer Science, 2016, , 341-347.	1.0	2
55	Evaluation of rehearsal effects of multimedia content based on EEG using machine learning algorithms. , 2016, , .		2

#	ARTICLE	IF	CITATIONS
56	Medical students' cognitive load in volumetric image interpretation: Insights from human-computer interaction and eye movements. <i>Computers in Human Behavior</i> , 2016, 62, 394-403.	5.1	24
57	Measurement of efficiency of auditory vs visual communication in HMI: A cognitive load approach. , 2016, , .		4
58	Pupillary transient responses to within-task cognitive load variation. <i>Computer Methods and Programs in Biomedicine</i> , 2016, 137, 47-63.	2.6	17
59	Neurophysiological Markers for Passive Brain-Computer Interfaces. , 2016, , 85-100.		10
60	EEG feature selection based on weighted-normalized mutual information for mental fatigue classification. , 2016, , .		4
61	TOBE. , 2016, , .		56
62	Feasibility of EEG to monitor cognitive performance during venous cannulation: EEG Distracted Intravenous Access (E-DIVA). <i>BMJ Simulation and Technology Enhanced Learning</i> , 2016, 2, 68-72.	0.7	3
63	Least squares method-based quantitative modeling on visual comfort for VDT display interface. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 84, 381-391.	1.5	5
64	Cognitive load in intralingual and interlingual respeaking " a preliminary study. <i>Poznan Studies in Contemporary Linguistics</i> , 2016, 52, .	0.1	14
65	Efficient mental workload estimation using task-independent EEG features. <i>Journal of Neural Engineering</i> , 2016, 13, 026019.	1.8	80
66	New Developments in Science and Technology Education. <i>Innovations in Science Education and Technology</i> , 2016, , .	0.1	7
67	Task Load Estimation and Mediation Using Psycho-physiological Measures. , 2016, , .		14
68	Using Wireless EEG Signals to Assess Memory Workload in the γ -Back Task. <i>IEEE Transactions on Human-Machine Systems</i> , 2016, 46, 424-435.	2.5	132
69	Cognitive Load Measurement in a Virtual Reality-Based Driving System for Autism Intervention. <i>IEEE Transactions on Affective Computing</i> , 2017, 8, 176-189.	5.7	96
70	Instructor presence in instructional video: Effects on visual attention, recall, and perceived learning. <i>Computers in Human Behavior</i> , 2017, 71, 79-89.	5.1	142
71	Sex and Ability Differences in Neural Strategy for Piaget's Water Level Test. <i>Perceptual and Motor Skills</i> , 2017, 124, 351-365.	0.6	0
72	Increased arithmetic complexity is associated with domain-general but not domain-specific magnitude processing in children: A simultaneous fNIRS-EEG study. <i>Cognitive, Affective and Behavioral Neuroscience</i> , 2017, 17, 724-736.	1.0	30
73	Cognitive load theory: Practical implications and an important challenge. <i>Journal of Taibah University Medical Sciences</i> , 2017, 12, 385-391.	0.5	54

#	ARTICLE	IF	CITATIONS
75	Monitoring brain waves in an effort to investigate student's cognitive load during a variety of problem solving scenarios. , 2017, , .		3
76	Put your thinking cap on. , 2017, , .		36
77	Strategies to reduce the negative effects of spoken explanatory text on integrated tasks. Instructional Science, 2017, 45, 239-261.	1.1	8
78	Cognitive Load in Voice Therapy Carry-Over Exercises. Journal of Speech, Language, and Hearing Research, 2017, 60, 1-12.	0.7	22
79	Monitoring Brain Activity of Geriatric Learners With Low-Cost Neurophysiological Technology. Mind, Brain, and Education, 2017, 11, 3-9.	0.9	0
80	Pupillary response to complex interdependent tasks: A cognitive-load theory perspective. Behavior Research Methods, 2017, 49, 1905-1919.	2.3	18
81	Brain waves-based index for workload estimation and mental effort engagement recognition. Journal of Physics: Conference Series, 2017, 904, 012008.	0.3	7
82	Informational Environments. , 2017, , .		4
83	Behavioral and Neurocognitive Evaluation of a Web-Platform for Game-Based Learning of Orthography and Numeracy. , 2017, , 149-176.		3
84	Effects of mental workload on involuntary attention: A somatosensory ERP study. Neuropsychologia, 2017, 106, 7-20.	0.7	25
85	A Framework to Assess Cortical Activity of Visually Impaired Persons during Training with a Sensory Substitution Device. , 2017, , .		2
86	Cognitive strategies in the mental rotation task revealed by EEG spectral power. Brain and Cognition, 2017, 118, 1-18.	0.8	30
87	Cognitive workload across the spectrum of cognitive impairments: A systematic review of physiological measures. Neuroscience and Biobehavioral Reviews, 2017, 80, 516-537.	2.9	49
88	Computer-based versus paper-based testing: Investigating testing mode with cognitive load and scratch paper use. Computers in Human Behavior, 2017, 77, 1-10.	5.1	21
89	An EEG-Based Cognitive Load Assessment in Multimedia Learning Using Feature Extraction and Partial Directed Coherence. IEEE Access, 2017, 5, 14819-14829.	2.6	55
90	Assessing effect of meditation on cognitive workload using EEG signals. , 2017, , .		4
91	A Comparative Study on Classification of Working Memory Tasks Using EEG Signals. , 2017, , .		5
92	EEG-based cognitive load of processing events in 3D virtual worlds is lower than processing events in 2D displays. International Journal of Psychophysiology, 2017, 122, 75-84.	0.5	69

#	ARTICLE	IF	CITATIONS
93	Learning-by-Doing. , 2017, , .		7
94	Using single point brain wave instrument to explore and verification of music frequency. , 2017, , .		2
95	Detecting and comparing brain activity in short program comprehension using EEG. , 2017, , .		10
96	Cross-subject classification of cognitive loads using a recurrent-residual deep network. , 2017, , .		6
97	Measuring Cognitive Load in Embodied Learning Settings. <i>Frontiers in Psychology</i> , 2017, 8, 1191.	1.1	54
98	Development and Validation of Two Instruments Measuring Intrinsic, Extraneous, and Germane Cognitive Load. <i>Frontiers in Psychology</i> , 2017, 8, 1997.	1.1	222
99	Feature Weight Driven Interactive Mutual Information Modeling for Heterogeneous Bio-Signal Fusion to Estimate Mental Workload. <i>Sensors</i> , 2017, 17, 2315.	2.1	16
100	MATLAB Toolboxes for Reference Electrode Standardization Technique (REST) of Scalp EEG. <i>Frontiers in Neuroscience</i> , 2017, 11, 601.	1.4	135
101	Analyzing the Impact of Cognitive Load in Evaluating Gaze-Based Typing. , 2017, , .		5
102	Digital Technologies: Sustainable Innovations for Improving Teaching and Learning. , 2018, , .		11
103	Exploring Adaptive Game-Based Learning Using Brain Measures. , 2018, , 161-171.		2
104	Towards an affordable brain computer interface for the assessment of programmersâ€™ mental workload. <i>International Journal of Human Computer Studies</i> , 2018, 115, 52-66.	3.7	63
105	Reduction but no shift in brain activation after arithmetic learning in children: A simultaneous fNIRS-EEG study. <i>Scientific Reports</i> , 2018, 8, 1707.	1.6	41
106	Computer Science and Engineeringâ€™Theory and Applications. <i>Studies in Systems, Decision and Control</i> , 2018, , .	0.8	1
108	Understanding mental workload: from a clarifying concept analysis toward an implementable framework. <i>Cognition, Technology and Work</i> , 2018, 20, 351-365.	1.7	65
109	A P300 auditory brain-computer interface based on mental repetition. <i>Biomedical Physics and Engineering Express</i> , 2018, 4, 035040.	0.6	5
110	Advances in Design for Inclusion. <i>Advances in Intelligent Systems and Computing</i> , 2018, , .	0.5	4
111	Reduced mental load in learning a motor visual task with virtual 3D method. <i>Journal of Computer Assisted Learning</i> , 2018, 34, 84-93.	3.3	19

#	ARTICLE	IF	CITATIONS
112	Towards More Accessible Physiological Data for Assessment of Cognitive Load - A Validation Study. , 2018, , .		10
113	Using neuroeducation methods to compare engineering student performance on linear and systems tasks. , 2018, , .		1
114	EEG-based discrimination of different cognitive workload levels from mental arithmetic. , 2018, 2018, 1984-1987.		17
115	The Feasibility and Interest of Monitoring the Cognitive and Affective States of Groups of Co-learners in Real Time as They Learn. , 2018, , 1-24.		0
116	Multimodal Assessment of Human Innovation Perception Based on Eye Tracking, Electroencephalography and Electrocardiography. , 2018, , .		0
118	Cognitive Load Assessment from EEG and Peripheral Biosignals for the Design of Visually Impaired Mobility Aids. Wireless Communications and Mobile Computing, 2018, 2018, 1-9.	0.8	15
119	Using Psychophysiological Sensors to Assess Mental Workload During Web Browsing. Sensors, 2018, 18, 458.	2.1	55
120	Detection-Response Taskâ€™Uses and Limitations. Sensors, 2018, 18, 594.	2.1	37
121	A novel method to monitoring changes in cognitive load in videoâ€™based learning. Journal of Computer Assisted Learning, 2019, 35, 721-730.	3.3	14
122	Selection of Control Panel Design Using Cognitive Load Parameters Based on Physiological Data: An Experimental Study. Design Journal, 2019, 22, 607-626.	0.5	3
123	Mental Workload Drives Different Reorganizations of Functional Cortical Connectivity Between 2D and 3D Simulated Flight Experiments. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1704-1713.	2.7	61
124	Individual Differences in Math Ability Determine Neurocognitive Processing of Arithmetic Complexity: A Combined fNIRS-EEG Study. Frontiers in Human Neuroscience, 2019, 13, 227.	1.0	18
125	Cognitive load in multimedia learning environments: A systematic review. Computers and Education, 2019, 141, 103618.	5.1	123
126	A Systematic Review on the Conceptualization and Operationalization of Students' Levels of Processing in Functional Magnetic Resonance Imaging Studies. Mind, Brain, and Education, 2019, 13, 198.	0.9	2
127	Exploring EEG Effective Connectivity Network in Estimating Influence of Color on Emotion and Memory. Frontiers in Neuroinformatics, 2019, 13, 66.	1.3	29
128	Photoplethysmogram-based Cognitive Load Assessment Using Multi-Feature Fusion Model. ACM Transactions on Applied Perception, 2019, 16, 1-17.	1.2	10
129	Fatigue EEG Feature Extraction Based on Tasks With Different Physiological States for Ubiquitous Edge Computing. IEEE Access, 2019, 7, 73057-73064.	2.6	11
130	EXPLORING THE COGNITIVE LEARNING PROCESS BY MEASURING COGNITIVE LOAD AND EMOTIONAL STATES. Biomedical Engineering - Applications, Basis and Communications, 2019, 31, 1950032.	0.3	4

#	ARTICLE	IF	CITATIONS
131	Role of subjective and objective measures of cognitive processing during learning in explaining the spatial contiguity effect. <i>Learning and Instruction</i> , 2019, 61, 23-34.	1.9	55
132	Cognitive Architecture and Instructional Design: 20 Years Later. <i>Educational Psychology Review</i> , 2019, 31, 261-292.	5.1	701
133	A Meta-analysis of the Segmenting Effect. <i>Educational Psychology Review</i> , 2019, 31, 389-419.	5.1	69
134	Towards an Online Continuous Adaptation Mechanism (OCAM) for Enhanced Engagement: An EEG Study. <i>International Journal of Human-Computer Interaction</i> , 2019, 35, 1960-1974.	3.3	28
136	Detection of a Smartphone User's Distraction Based on Typing and Touch Gestures. , 2019, , .		1
137	Measuring Student Engagement to Inform Effective Interventions in Schools. , 2019, , 309-324.		14
138	Experiences of studying Attention through EEG in the Context of Review Tasks. , 2019, , .		2
139	Looking into the Black Box: Using Gaze and Pupillometric Data to Probe How Cognitive Load Changes with Mental Tasks. <i>Journal of Chemical Education</i> , 2019, 96, 830-840.	1.1	7
140	Spectral and Temporal Feature Learning With Two-Stream Neural Networks for Mental Workload Assessment. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1149-1159.	2.7	60
141	A Reference-Dependent Model of Search Evaluation. , 2019, , .		1
142	Oscillatory EEG Changes During Arithmetic Learning in Children. <i>Developmental Neuropsychology</i> , 2019, 44, 325-338.	1.0	14
143	An Important and Timely Field. , 2019, , 1-8.		6
144	The History of Computing Education Research. , 2019, , 11-39.		26
145	Computing Education Research Today. , 2019, , 40-55.		5
146	Computing Education Literature Review and Voices from the Field. , 2019, , 56-78.		10
147	A Study Design Process. , 2019, , 81-101.		1
149	Inferential Statistics. , 2019, , 133-172.		2
150	Qualitative Methods for Computing Education. , 2019, , 173-207.		9

#	ARTICLE	IF	CITATIONS
151	Learning Sciences for Computing Education. , 2019, , 208-230.		17
152	Higher Education Pedagogy. , 2019, , 276-291.		4
153	Engineering Education Research. , 2019, , 292-322.		4
154	Novice Programmers and Introductory Programming. , 2019, , 327-376.		60
155	Programming Paradigms and Beyond. , 2019, , 377-413.		31
156	Assessment and Plagiarism. , 2019, , 414-444.		6
157	Pedagogic Approaches. , 2019, , 445-480.		13
158	Equity and Diversity. , 2019, , 481-510.		10
159	Computational Thinking. , 2019, , 513-546.		24
160	Schools (Kâ€“12). , 2019, , 547-583.		5
161	Computing for Other Disciplines. , 2019, , 584-605.		4
162	New Programming Paradigms. , 2019, , 606-636.		1
163	Tools and Environments. , 2019, , 639-662.		11
164	Tangible Computing. , 2019, , 663-678.		35
165	Leveraging the Integrated Development Environment for Learning Analytics. , 2019, , 679-706.		7
166	Teacher Learning and Professional Development. , 2019, , 727-748.		1
167	Learning Outside the Classroom. , 2019, , 749-772.		6
168	Student Knowledge and Misconceptions. , 2019, , 773-800.		1

#	ARTICLE	IF	CITATIONS
169	Students As Teachers and Communicators. , 2019, , 827-858.		5
170	A Case Study of Peer Instruction. , 2019, , 861-874.		3
171	A Case Study of Qualitative Methods. , 2019, , 875-894.		0
173	Addressing the Challenge of Measuring Student Engagement. , 2019, , 689-712.		15
174	Multichannel data for understanding cognitive affordances during complex problem solving. , 2019, , .		5
175	An empirical mode decomposition (EMD)-based scheme for alcoholism identification. Pattern Recognition Letters, 2019, 125, 133-139.	2.6	19
176	Non-invasive neurophysiological measures of learning: A meta-analysis. Neuroscience and Biobehavioral Reviews, 2019, 99, 59-89.	2.9	22
177	Evaluation of a Sound Quality Visual Feedback System for Bow Learning Technique in Violin Beginners: An EEG Study. Frontiers in Psychology, 2019, 10, 165.	1.1	14
178	Cognitive Sciences for Computing Education. , 2019, , 231-275.		22
179	Teacher Knowledge for Inclusive Computing Learning. , 2019, , 709-726.		6
180	Motivation, Attitudes, and Dispositions. , 2019, , 801-826.		15
181	How reading in single- and multiple-column types influence our cognitive load: an EEG study. Electronic Library, 2019, 37, 593-606.	0.8	8
182	Effects of map design characteristics on usersâ€™ search performance and cognitive load. Electronic Library, 2019, 37, 667-679.	0.8	9
183	Combining physiological data and subjective measurements to investigate cognitive load during complex learning. , 2019, 7, 57-74.		29
184	Neuroscience in service research: an overview and discussion of its possibilities. Journal of Service Management, 2019, 30, 621-649.	4.4	33
185	A Preliminary Exploration of Montage Transitions in Cinematic Virtual Reality. , 2019, , .		5
186	Spectral EEG-based classification for operator dyadsâ€™ workload and cooperation level estimation. , 2019, , .		8
187	EEG as a tool to measure cognitive load while playing Sudoku: A preliminary study. , 2019, , .		3

#	ARTICLE	IF	CITATIONS
189	Effect of multitasking, physical environment and electroencephalography use on cognitive load and retention. <i>Computers in Human Behavior</i> , 2019, 92, 216-229.	5.1	54
190	Showing Is Knowing: The Potential and Challenges of Using Neurocognitive Measures of Implicit Learning in the Classroom. <i>Mind, Brain, and Education</i> , 2019, 13, 30-40.	0.9	21
191	Biomechatronic Applications of Brain-Computer Interfaces. , 2019, , 129-175.		6
193	Learning Spatialâ€“Spectralâ€“Temporal EEG Features With Recurrent 3D Convolutional Neural Networks for Cross-Task Mental Workload Assessment. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 31-42.	2.7	155
195	Estimating cognitive load from speech gathered in a complex real-life training exercise. <i>International Journal of Human Computer Studies</i> , 2019, 124, 116-133.	3.7	13
196	Adding immersive virtual reality to a science lab simulation causes more presence but less learning. <i>Learning and Instruction</i> , 2019, 60, 225-236.	1.9	632
197	Does language really matter when solving mathematical word problems in a second language? A cognitive load perspective. <i>Educational Studies</i> , 2020, 46, 18-38.	1.4	2
198	The effects of visual distractors on cognitive load in a motor imagery brain-computer interface. <i>Behavioural Brain Research</i> , 2020, 378, 112240.	1.2	24
199	Validating theta power as an objective measure of cognitive load in educational video. <i>Educational Technology Research and Development</i> , 2020, 68, 181-202.	2.0	35
200	Mobile pupillometry in manual assembly: A pilot study exploring the wearability and external validity of a renowned mental workload lab measure. <i>International Journal of Industrial Ergonomics</i> , 2020, 75, 102891.	1.5	23
201	Cognition Digital Twins for Personalized Information Systems of Smart Cities: Proof of Concept. <i>Journal of Management in Engineering - ASCE</i> , 2020, 36, .	2.6	60
202	Using eye-tracking and EEG to study the mental processing demands during learning of text-picture combinations. <i>International Journal of Psychophysiology</i> , 2020, 158, 201-214.	0.5	25
203	Dynamic assessment of control room operator's cognitive workload using Electroencephalography (EEG). <i>Computers and Chemical Engineering</i> , 2020, 141, 106726.	2.0	31
204	Characterisation of mobile-device tasks by their associated cognitive load through EEG data processing. <i>Future Generation Computer Systems</i> , 2020, 113, 380-390.	4.9	15
205	Detection of Careless Mistakes during Programming Learning using a Simple Electroencephalograph. , 2020, , .		2
206	The Use of Virtual Reality Alone Does Not Promote Training Performance (but Sense of Presence Does). <i>Frontiers in Psychology</i> , 2020, 11, 1743.	1.1	86
207	Exploring the Cognitive Load of Expert and Novice Map Users Using EEG and Eye Tracking. <i>ISPRS International Journal of Geo-Information</i> , 2020, 9, 429.	1.4	38
208	Examining Computerâ€“Supported 3D Event Recreation for Enhancing Cognitive Load, Memorability, and Engagement. <i>Multimodal Technologies and Interaction</i> , 2020, 4, 37.	1.7	3

#	ARTICLE	IF	CITATIONS
209	Measuring Human Trust in a Virtual Assistant using Physiological Sensing in Virtual Reality. , 2020, , .		40
210	Looking at Mental Effort Appraisals through a Metacognitive Lens: Are they Biased?. Educational Psychology Review, 2020, 32, 1003-1027.	5.1	33
211	Quantifying Cognitive Load using EEG during Ambulation and Postural Tasks. , 2020, 2020, 2849-2852.		8
212	Using Machine Learning to Train a Wearable Device for Measuring Studentsâ€™ Cognitive Load during Problem-Solving Activities Based on Electrodermal Activity, Body Temperature, and Heart Rate: Development of a Cognitive Load Tracker for Both Personal and Classroom Use. Sensors, 2020, 20, 4833.	2.1	25
213	An Auditory-Perceptual and Pupillometric Study of Vocal Strain and Listening Effort in Adductor Spasmodic Dysphonia. Applied Sciences (Switzerland), 2020, 10, 5907.	1.3	5
214	Development of Cognitive and Psychomotor Task for EEG Application with Matlab-based GUI. IOP Conference Series: Materials Science and Engineering, 2020, 917, 012050.	0.3	1
215	Programming experience associated with neural efficiency during figural reasoning. Scientific Reports, 2020, 10, 13351.	1.6	9
216	Utilizing Multimodal Data Through fsQCA to Explain Engagement in Adaptive Learning. IEEE Transactions on Learning Technologies, 2020, 13, 689-703.	2.2	44
217	What Can Neuromarketing Tell Us about Food Packaging?. Foods, 2020, 9, 1856.	1.9	27
218	The use of contextual priors and kinematic information during anticipation in sport: toward a Bayesian integration framework. International Review of Sport and Exercise Psychology, 2023, 16, 286-310.	3.1	21
219	Cognitive and Affective Assessment of Navigation and Mobility Tasks for the Visually Impaired via Electroencephalography and Behavioral Signals. Sensors, 2020, 20, 5821.	2.1	5
220	Measuring Human Trust in a Virtual Assistant using Physiological Sensing in Virtual Reality. , 2020, , .		5
221	A brainâ€™computer interface for the continuous, real-time monitoring of working memory load in real-world environments. Cognitive Neurodynamics, 2020, 14, 301-321.	2.3	13
222	Ready student one: Exploring the predictors of student learning in virtual reality. PLoS ONE, 2020, 15, e0229788.	1.1	47
223	Electroencephalographic Workload Indicators During Teleoperation of an Unmanned Aerial Vehicle Shepherding a Swarm of Unmanned Ground Vehicles in Contested Environments. Frontiers in Neuroscience, 2020, 14, 40.	1.4	49
224	Neurophysiological changes in visuomotor sequence learning provide insight in general learning processes: Measures of brain activity, skin conductance, heart rate and respiration. International Journal of Psychophysiology, 2020, 151, 40-48.	0.5	6
225	Non-invasive Neurophysiology in Learning and Training: Mechanisms and a SWOT Analysis. Frontiers in Neuroscience, 2020, 14, 589.	1.4	11
226	MATT: A Mobile Assisted Tense Tool for Flexible m-Grammar Learning Based on Cloud-Fog-Edge Collaborative Networking. IEEE Access, 2020, 8, 66074-66084.	2.6	5

#	ARTICLE	IF	CITATIONS
227	How Much Cueing Is Needed in Instructional Animations? The Role of Prior Knowledge. <i>Journal of Science Education and Technology</i> , 2020, 29, 666-676.	2.4	11
228	Subjective semantic surprise resulting from divided attention biases evaluations of an idea's creativity. <i>Scientific Reports</i> , 2020, 10, 2144.	1.6	6
229	Custom Domain Adaptation: A New Method for Cross-Subject, EEG-Based Cognitive Load Recognition. <i>IEEE Signal Processing Letters</i> , 2020, 27, 750-754.	2.1	32
230	Converging Subjective and Psychophysiological Measures of Cognitive Load to Study the Effects of Instructor-Present Video. <i>Mind, Brain, and Education</i> , 2020, 14, 279-291.	0.9	38
231	The impact of task load on the integration of explicit contextual priors and visual information during anticipation. <i>Psychophysiology</i> , 2020, 57, e13578.	1.2	14
232	To CALL or not to CALL: empirical evidence from neuroscience. <i>Computer Assisted Language Learning</i> , 2022, 35, 792-815.	4.8	16
233	Multimodal Classification of Stressful Environments in Visually Impaired Mobility Using EEG and Peripheral Biosignals. <i>IEEE Transactions on Affective Computing</i> , 2021, 12, 203-214.	5.7	18
234	Towards measuring cognitive load through multimodal physiological data. <i>Cognition, Technology and Work</i> , 2021, 23, 567-585.	1.7	40
235	Development and validation of a behavioural video coding scheme for detecting mental workload in manual assembly. <i>Ergonomics</i> , 2021, 64, 78-102.	1.1	11
236	EEG-Based Multiclass Workload Identification Using Feature Fusion and Selection. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-8.	2.4	27
237	Electroencephalography and Brain-Computer Interfaces. , 2021, , 71-103.		1
238	Cognitive Workload Recognition Using EEG Signals and Machine Learning: A Review. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2022, 14, 799-818.	2.6	42
239	Cross-task and Cross-participant Classification of Cognitive Load in an Emergency Simulation Game. <i>IEEE Transactions on Affective Computing</i> , 2021, , 1-1.	5.7	10
240	Longitudinal Classification of Mental Effort Using Electrodermal Activity, Heart Rate, and Skin Temperature Data from a Wearable Sensor. <i>Lecture Notes in Computer Science</i> , 2021, , 86-95.	1.0	2
241	Instructional Design of Virtual Learning Resources for Anatomy Education. <i>Advances in Experimental Medicine and Biology</i> , 2021, 1317, 75-110.	0.8	4
242	EEG Fingerprints of Task-Independent Mental Workload Discrimination. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 3824-3833.	3.9	36
243	A Survey on Affective and Cognitive VR. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2022, 28, 5154-5171.	2.9	5
244	Scalability of Network Visualisation from a Cognitive Load Perspective. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2021, 27, 1677-1687.	2.9	20

#	ARTICLE	IF	CITATIONS
245	Challenges and opportunities of multimodal data in human learning: The computer science students' perspective. <i>Journal of Computer Assisted Learning</i> , 2021, 37, 1030-1047.	3.3	26
246	The Validation and Further Development of the Multidimensional Cognitive Load Scale for Physical and Online Lectures (MCLS-POL). <i>Frontiers in Psychology</i> , 2021, 12, 642084.	1.1	9
247	Comparing the Neuro-Physiological Effects of Cinematic Virtual Reality with 2D Monitors. , 2021, , .		7
248	Searching to improve learning from complex animated basketball scenes: when decreasing the presentation speed is more efficient than using segmentation. <i>Technology, Pedagogy and Education</i> , 2021, 30, 393-407.	3.3	5
249	Impact of delayed response on wearable cognitive assistance. <i>PLoS ONE</i> , 2021, 16, e0248690.	1.1	8
250	Gender Differences of Cognitive Loads in Augmented Reality-based Warehouse. , 2021, , .		3
251	Effects of augmented reality glasses on the cognitive load of assembly operators in the automotive industry. <i>International Journal of Computer Integrated Manufacturing</i> , 2021, 34, 487-499.	2.9	28
252	Analyzing Relationships Between Causal and Assessment Factors of Cognitive Load: Associations Between Objective and Subjective Measures of Cognitive Load, Stress, Interest, and Self-Concept. <i>Frontiers in Education</i> , 2021, 6, .	1.2	17
253	An Item Response Modeling Approach to Cognitive Load Measurement. <i>Frontiers in Education</i> , 2021, 6, .	1.2	3
254	Correlation Between Physiological and Performance-Based Metrics to Estimate Pilots' Cognitive Workload. <i>Frontiers in Psychology</i> , 2021, 12, 555446.	1.1	8
255	Brainwave-driven human-robot collaboration in construction. <i>Automation in Construction</i> , 2021, 124, 103556.	4.8	74
256	Effect of tonal noise and task difficulty on electroencephalography and cognitive performance. <i>International Journal of Occupational Safety and Ergonomics</i> , 2022, 28, 1353-1361.	1.1	6
257	Remediating learning from non-immersive to immersive media: Using EEG to investigate the effects of environmental embeddedness on reading in Virtual Reality. <i>Computers and Education</i> , 2021, 164, 104122.	5.1	69
258	A Current View on Dual-Task Paradigms and Their Limitations to Capture Cognitive Load. <i>Frontiers in Psychology</i> , 2021, 12, 648586.	1.1	8
259	Eye-blink artifact removal from single channel EEG with k-means and SSA. <i>Scientific Reports</i> , 2021, 11, 11043.	1.6	30
260	The effect of narrative-based E-learning systems on novice users's cognitive load while learning software applications. <i>Educational Technology Research and Development</i> , 2021, 69, 2451.	2.0	9
262	Electroencephalography (EEG) based cognitive measures for evaluating the effectiveness of operator training. <i>Chemical Engineering Research and Design</i> , 2021, 150, 51-67.	2.7	25
263	DEMONSTRATING THE FEASIBILITY OF MULTIMODAL NEUROIMAGING DATA CAPTURE WITH A WEARABLE ELECTROENCEPHALOGRAPHY + FUNCTIONAL NEAR-INFRARED SPECTROSCOPY (EEG+FNIRS) IN SITU. <i>Proceedings of the Design Society</i> , 2021, 1, 901-910.	0.5	1

#	ARTICLE	IF	CITATIONS
264	Unloading the dice: selection and design of comparison and control groups in controlled trials to enhance translational impact within motor learning and control research. <i>International Journal of Sport and Exercise Psychology</i> , 2022, 20, 1330-1344.	1.1	5
265	Mental Workload Evaluation of Virtual Object Manipulation on WebVR: An EEG Study. , 2021, , .		4
267	Investigating the redundancy principle in immersive virtual reality environments: An eye-tracking and EEG study. <i>Journal of Computer Assisted Learning</i> , 2022, 38, 120-136.	3.3	24
268	An instructor's beat gestures facilitate second language vocabulary learning from instructional videos: Behavioral and neural evidence. <i>Language Teaching Research</i> , 0, , 136216882110390.	2.1	12
269	Paving the Way for Future EEG Studies in Construction: Dependent Component Analysis for Automatic Ocular Artifact Removal from Brainwave Signals. <i>Journal of Construction Engineering and Management - ASCE</i> , 2021, 147, .	2.0	22
270	How Moment-to-Moment EEG Measures Enhance Ad Effectiveness Evaluation. <i>Journal of Advertising Research</i> , 2021, 61, 365-381.	1.0	5
271	Cognitive Load Measurement Based on EEG Signals. , 0, , .		2
272	Classification of cross task cognitive workload using deep recurrent network with modelling of temporal dynamics. <i>Biomedical Signal Processing and Control</i> , 2021, 70, 103070.	3.5	13
273	Studying the generalisability of cognitive load measured with EEG. <i>Biomedical Signal Processing and Control</i> , 2021, 70, 103032.	3.5	8
274	The Validity of Physiological Measures to Identify Differences in Intrinsic Cognitive Load. <i>Frontiers in Psychology</i> , 2021, 12, 702538.	1.1	47
275	Assessing learning effort with hand motion tracking methods. <i>Applied Cognitive Psychology</i> , 2021, 35, 606-620.	0.9	3
276	CogAlign: Learning to Align Textual Neural Representations to Cognitive Language Processing Signals. , 2021, , .		2
277	Smooth Operator. <i>Communications in Computer and Information Science</i> , 2021, , 233-240.	0.4	1
278	EEG-Based Cognitive State Classification and Analysis of Brain Dynamics Using Deep Ensemble Model and Graphical Brain Network. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2022, 14, 1507-1519.	2.6	5
280	Cognitive Load Measurement. , 2012, , 599-601.		49
281	Implications of Neuroimaging for Educational Research. , 2014, , 51-63.		12
282	Educational Neuroscience: Exploring Cognitive Processes that Underlie Learning. <i>Educational Communications and Technology: Issues and Innovations</i> , 2019, , 27-46.	0.2	8
284	Modelling Learners' Behaviour: A Novel Approach Using GARCH with Multimodal Data. <i>Lecture Notes in Computer Science</i> , 2019, , 450-465.	1.0	5

#	ARTICLE	IF	CITATIONS
285	The Effect of Individual Coordination Ability on Cognitive-Load in Tacit Coordination Games. Lecture Notes in Information Systems and Organisation, 2020, , 244-252.	0.4	6
286	Cognitive Load and Stress in Simulation. Comprehensive Healthcare Simulation, 2016, , 3-17.	0.2	27
287	Fixation-Related EEG Frequency Band Power Analysis: A Promising Neuro-Cognitive Methodology to Evaluate the Matching-Quality of Web Search Results?. Communications in Computer and Information Science, 2016, , 245-250.	0.4	4
288	Traditional Vs Gesture Based UAV Control. Advances in Intelligent Systems and Computing, 2019, , 15-23.	0.5	3
289	Scanpath Complexity: Modeling Reading/Annotation Effort Using Gaze Information. Cognitive Intelligence and Robotics, 2018, , 77-98.	0.6	6
290	EEGNAS: Neural Architecture Search for Electroencephalography Data Analysis and Decoding. Communications in Computer and Information Science, 2019, , 3-20.	0.4	10
291	Employee acceptability of wearable mental workload monitoring: exploring effects of framing the goal and context in corporate communication. Cognition, Technology and Work, 2021, 23, 537-552.	1.7	5
292	Psychophysiologic measures of cognitive load in physician team leaders during trauma resuscitation. Computers in Human Behavior, 2020, 111, 106393.	5.1	26
295	Learning in science, technology, engineering, and mathematics: Supporting students with learning disabilities.. Canadian Psychology, 2017, 58, 238-249.	1.4	10
296	Itâ€™s all a matter of perspective: Viewing first-person video modeling examples promotes learning of an assembly task.. Journal of Educational Psychology, 2017, 109, 653-665.	2.1	72
297	Chapter 12. Multimodal measurement of cognitive load during subtitle processing. American Translators Association Scholarly Monograph Series, 0, , 267-294.	0.2	9
298	Triangulation of online and offline measures of processing and reception in AVT. Benjamins Translation Library, 0, , 91-110.	0.3	8
300	Galvanic Skin Response signal based Cognitive Load classification using Machine Learning classifier. , 2019, , .		3
301	Cognitive workload classification using eye-tracking and EEG data. , 2016, , .		17
302	Investigating Representation of Text and Audio in Educational VR using Learning Outcomes and EEG. , 2020, , .		39
303	In AI We Trust: Investigating the Relationship between Biosignals, Trust and Cognitive Load in VR. , 2019, , .		27
304	Predicting learners' effortful behaviour in adaptive assessment using multimodal data. , 2020, , .		34
305	Measuring the Cognitive Load of Learning to Program: AÂ€Replication Study. , 2020, , .		7

#	ARTICLE	IF	CITATIONS
306	Mediscape: Preliminary Design Guidelines for Interactive Rhythmic Soundscapes for Entraining Novice Mindfulness Meditators. , 2020, , .		5
307	The more total cognitive load is reduced by cues, the better retention and transfer of multimedia learning: A meta-analysis and two meta-regression analyses. PLoS ONE, 2017, 12, e0183884.	1.1	31
308	Attention distribution and cognitive load in a subtitled academic lecture: L1 vs. L2. Journal of Eye Movement Research, 2015, 7, .	0.5	33
309	Confirmatory Factor Analysis of Cognitive Load Ratings Supports a Two-Factor Model. The Quantitative Methods for Psychology, 2020, 16, 216-225.	0.6	31
310	A Biofeedback App to Instruct Abdominal Breathing (Breathing-Mentor): Pilot Experiment. JMIR MHealth and UHealth, 2019, 7, e13703.	1.8	10
311	An agenda for neuroeducation: relating psychophysiological and behavioral data across time scales of learning. Neuroeducation, 2013, 2, 71-86.	0.3	6
312	Revealing Unconscious Consumer Reactions to Advertisements That Include Visual Metaphors. A Neurophysiological Experiment. Frontiers in Psychology, 2020, 11, 760.	1.1	25
313	Analysis of Cognitive Load Using EEG when Interacting with Mobile Devices. Proceedings (mdpi), 2019, 31, .	0.2	13
314	How is multi-tasking different from increased difficulty?. Psychonomic Bulletin and Review, 2020, 27, 937-951.	1.4	22
315	An Experiment in Use of Brain Computer Interfaces for Cognitive Researches. International Journal of Intelligence Science, 2015, 05, 80-88.	0.6	4
317	Estimation of Working Memory Load using EEG Connectivity Measures. , 2016, , .		8
318	The impact of sleep loss on sustained and transient attention: an EEG study. PeerJ, 2020, 8, e8960.	0.9	9
319	Situative Creativity: Larger Physical Spaces Facilitate Thinking of Novel Uses for Everyday Objects. Journal of Problem Solving, 2016, 9, .	0.7	6
320	The teaching and learning brains: Interpersonal neuroscience in educational research. Advances in Psychological Science, 2021, 29, 1993-2001.	0.2	4
321	Cognitive Validation of BYOD-Supported Traditional Classroom Using Single Channel EEG. Advances in Intelligent Systems and Computing, 2021, , 291-302.	0.5	0
323	Neuroimaging tools in multimedia learning: a systematic review. Interactive Learning Environments, 0, , 1-18.	4.4	4
324	A tale of two classes: Tourism studentsâ€™ cognitive loads and learning outcomes in face-to-face and online classes. Journal of Hospitality, Leisure, Sport and Tourism Education, 2021, 29, 100342.	1.9	4
325	Upload, Download, Overload!. , 2013, , 71-102.		0

#	ARTICLE	IF	CITATIONS
326	Passive Brain-Computer Interfaces for Robot-Assisted Rehabilitation. Springer Briefs in Electrical and Computer Engineering, 2014, , 73-95.	0.3	0
327	Evaluating EEG Measures as a Workload Assessment in an Operational Video Game Setup. , 2015, , .		2
328	The Decision Maker's Cognitive Load. , 2015, , 6466-6474.		0
329	Brain Activity and Visual Scientific Content: A Study on Earthquake Precaution. Innovations in Science Education and Technology, 2016, , 31-40.	0.1	0
330	Quantifying and Overcoming the Effect of Distraction on Cognitive Load in a Brain-Computer Interface. , 0, , .		0
331	Real-Time Cognitive Load Measurement for Dynamic Modality Selection Using Eye-Tracking Methods. Advances in Intelligent Systems and Computing, 2018, , 229-237.	0.5	0
332	Investigating the Impact of Coloring Experience on Young Adults Through Brainwave Variations and Image Preferences. US-China Education Review B, 2017, 7, .	0.1	0
334	Rough Sets: Visually Discerning Neurological Functionality During Thought Processes. Lecture Notes in Computer Science, 2018, , 32-41.	1.0	0
335	Cognitive load in the reading of hipertexts. Zona PrÃ³xima, 2018, , 42-56.	0.0	0
337	The Effects of Masking Peripheral Visual Field on Visual Search Task Performance. Journal of Social Science, 2018, 29, 59-71.	0.0	0
340	An ELM-based Deep SDAE Ensemble for Inter-Subject Cognitive Workload Estimation with Physiological Signals. , 2020, , .		0
342	The effects of simulator training on the development of creative thinking in law enforcement officers. Policing, 2021, 44, 455-468.	0.8	2
343	â€œOverloadingâ€•Cognitive (Work)Load: What Are We Really Measuring?. Lecture Notes in Information Systems and Organisation, 2021, , 77-89.	0.4	2
344	Analysis of electroencephalography brain rhythms in the reading process. Einstein (Sao Paulo, Brazil), 2020, 18, eAO5442.	0.3	1
345	Evaluation of 3 Cognitive Load Measures During Repeated Simulation Exercises for Novice Anesthesiology Residents. Simulation in Healthcare, 2020, 15, 388-396.	0.7	7
346	A Laboratory Study of Student Usage of Worked-example Videos to Support Problem Solving. , 0, , .		1
347	Quantifying Cognitive Load in Wayfinding Information Review Using EEG. , 2020, , .		1
348	PAZARLAMADA YENÄ° EÄžÄ°LÄ°MLER AÄžİSINDAN NÄ–ROPAZARLAMA VE ALGI YÄ–NETÄ°MÄ° ÄœZERÄ°NE BÄ°R ÄRARAÄžTIRMA. Ä–ne, , .	0.1	1

#	ARTICLE	IF	CITATIONS
349	Interruptions versus breaks: The role of cue utilisation in a simulated process control task. <i>Applied Cognitive Psychology</i> , 2021, 35, 473-485.	0.9	1
350	Research Methods in Multimedia Learning. , 2021, , 41-54.		2
353	Topographic Analysis of Cognitive Load in Tacit Coordination Games Based on Electrophysiological Measurements. <i>Lecture Notes in Information Systems and Organisation</i> , 2021, , 162-171.	0.4	6
354	Impacts of Color Coding on Programming Learning in Multimedia Learning: Moving Toward a Multimodal Methodology. <i>Frontiers in Psychology</i> , 2021, 12, 773328.	1.1	6
355	The structured interview's resistance to gender discrimination under cognitive load. <i>International Journal of Selection and Assessment</i> , 2022, 30, 281-301.	1.7	4
356	Take-Over Requests after Waking in Autonomous Vehicles. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 1438.	1.3	7
357	Worker-Aware Task Planning for Construction Robots: A Physiologically Based Communication Channel Interface. , 2022, , 181-200.		3
358	Continuous Monitoring of Mental Load During Virtual Simulator Training for Laparoscopic Surgery Reflects Laparoscopic Dexterity: A Comparative Study Using a Novel Wireless Device. <i>Frontiers in Neuroscience</i> , 2021, 15, 694010.	1.4	4
359	Facebook usage patterns looking into the mind via the ICAP engagement framework. <i>Behaviour and Information Technology</i> , 2023, 42, 514-526.	2.5	0
360	Neuroscience and CSR: Using EEG for Assessing the Effectiveness of Branded Videos Related to Environmental Issues. <i>Sustainability</i> , 2022, 14, 1347.	1.6	2
361	Editorial: Recent Approaches for Assessing Cognitive Load From a Validity Perspective. <i>Frontiers in Education</i> , 2022, 6, .	1.2	0
362	Split-attention effects in multimedia learning environments: eye-tracking and EEG analysis. <i>Multimedia Tools and Applications</i> , 2022, 81, 8259-8282.	2.6	4
363	Intelligent Method for Real-Time Portable EEG Artifact Annotation in Semiconstrained Environment Based on Computer Vision. <i>Computational Intelligence and Neuroscience</i> , 2022, 2022, 1-14.	1.1	1
364	Cognitive Workload Estimation Using Variational Autoencoder and Attention-Based Deep Model. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2023, 15, 581-590.	2.6	3
365	Electroencephalogram-based Cognitive Load Classification During Mental Arithmetic Task. <i>Lecture Notes in Electrical Engineering</i> , 2022, , 479-487.	0.3	4
366	Brain Computer Interface: Future, Challenges, and Potential Threats. <i>SSRN Electronic Journal</i> , 0, , .	0.4	2
367	â€œSoundâ€•Decisions: The Combined Role of Ambient Noise and Cognitive Regulation on the Neurophysiology of Food Cravings. <i>Frontiers in Neuroscience</i> , 2022, 16, 827021.	1.4	5
368	Systematic literature review on domestic educational research using EEG. <i>Journal of Digital Contents Society</i> , 2022, 23, 217-225.	0.1	0

#	ARTICLE	IF	CITATIONS
369	A neurotechnological aid for semi-autonomous suction in robotic-assisted surgery. Scientific Reports, 2022, 12, 4504.	1.6	1
370	A multimodal analysis of college studentsâ€™ collaborative problem solving in virtual experimentation activities: a perspective of cognitive load. Journal of Computing in Higher Education, 2023, 35, 272-295.	3.9	5
371	Training Monitoring in Sports: It Is Time to Embrace Cognitive Demand. Sports, 2022, 10, 56.	0.7	9
372	Native language subtitling of educational videos: A multimodal analysis with eye tracking, EEG and self-reports. British Journal of Educational Technology, 0, , .	3.9	4
373	EEG-based measurement system for monitoring student engagement in learning 4.0. Scientific Reports, 2022, 12, 5857.	1.6	36
374	Danger, high voltage! Using EEG and EOG measurements for cognitive overload detection in a simulated industrial context. Applied Ergonomics, 2022, 102, 103763.	1.7	7
375	Single feature spatio-temporal architecture for EEG Based cognitive load assessment. , 2021, 2021, 3717-3720.		0
376	Study of EEG characteristics while solving scientific problems with different mental effort. Scientific Reports, 2021, 11, 23783.	1.6	13
377	Sensor-Based Prediction of Mental Effort during Learning from Physiological Data: A Longitudinal Case Study. Signals, 2021, 2, 886-901.	1.2	2
379	Cognitive Load Assessment Scales in Simulation. Simulation in Healthcare, 2023, 18, 172-180.	0.7	2
380	Cognitive Load Theory in Computing Education Research: A Review. ACM Transactions on Computing Education, 2022, 22, 1-27.	2.9	11
381	Psychometric Properties for Multidimensional Cognitive Load Scale in an E-Learning Environment. International Journal of Environmental Research and Public Health, 2022, 19, 5822.	1.2	3
382	An Evaluation of the EEG Alpha-to-Theta and Theta-to-Alpha Band Ratios as Indexes of Mental Workload. Frontiers in Neuroinformatics, 2022, 16, .	1.3	19
383	Single-Channel EEG Features Reveal an Association With Cognitive Decline in Seniors Performing Auditory Cognitive Assessment. Frontiers in Aging Neuroscience, 0, 14, .	1.7	2
384	Human Mental Workload: A Survey and a Novel Inclusive Definition. Frontiers in Psychology, 2022, 13, .	1.1	32
385	Investigating the Impact of Construction Robots Autonomy Level on Workersâ€™ Cognitive Load. Lecture Notes in Civil Engineering, 2023, , 255-267.	0.3	5
387	EEG Features of Evoked Tactile Sensation: Two Cases Study. Frontiers in Human Neuroscience, 0, 16, .	1.0	2
388	A Review for Neuroimaging Techniques in Multimedia Learning. Advances in Bioinformatics and Biomedical Engineering Book Series, 2022, , 72-97.	0.2	1

#	ARTICLE	IF	CITATIONS
389	Psychophysiological Responses of Adults According to Cognitive Demand Levels for Horticultural Activities. <i>Sustainability</i> , 2022, 14, 8252.	1.6	0
390	A practical review of electroencephalography's value to consumer research. <i>International Journal of Market Research</i> , 0, , 147078532211126.	2.8	4
391	Scanpath Complexity: Modeling Reading Effort Using Gaze Information. <i>Proceedings of the AAAI Conference on Artificial Intelligence</i> , 2017, 31, .	3.6	4
392	Cognitive load detection using circulant singular spectrum analysis and Binary Harris Hawks Optimization based feature selection. <i>Biomedical Signal Processing and Control</i> , 2023, 79, 104006.	3.5	19
393	Assessment of instantaneous cognitive load imposed by educational multimedia using electroencephalography signals. <i>Frontiers in Neuroscience</i> , 0, 16, .	1.4	4
394	Cross-Task Cognitive Load Classification with Identity Mapping-Based Distributed CNN and Attention-Based RNN Using Gabor Decomposed Data Images. <i>IETE Journal of Research</i> , 0, , 1-17.	1.8	1
395	Neural correlates in functional brain mapping among breast cancer survivors receiving different chemotherapy regimens: a qEEG/HEG-based investigation. <i>Japanese Journal of Clinical Oncology</i> , 0, , .	0.6	0
396	Measurement of Extraneous and Germane Cognitive Load in the Mathematics Addition Task: An Event-Related Potential Study. <i>Brain Sciences</i> , 2022, 12, 1036.	1.1	1
397	The influence of experience on cognitive load during simultaneous interpretation. <i>Brain and Language</i> , 2022, 234, 105185.	0.8	1
398	Inter-subject cognitive workload estimation based on a cascade ensemble of multilayer autoencoders. <i>Expert Systems With Applications</i> , 2023, 211, 118694.	4.4	3
399	Analysis of Alpha Band Decomposition in Different Level-k Scenarios with Semantic Processing. <i>Lecture Notes in Computer Science</i> , 2022, , 65-73.	1.0	2
400	A Comparative Study of Prototyping Methods for HCI Design Using Cognitive Load-Based Measures. <i>Lecture Notes in Computer Science</i> , 2022, , 43-58.	1.0	0
401	A New Method for Quantifying Workload of Drivers and Application in Analyzing Stabilization Time after Critical Events in Varying Automation Levels. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
402	Work-in-Progress's Stress and Flow Assessment during a Virtual Reality Fire Extinguishing Training. , 2022, , .		0
403	The Measurement of Student Engagement: Methodological Advances and Comparison of New Self-report Instruments. , 2022, , 597-616.		6
404	Modeling Cognitive Load as a Self-Supervised Brain Rate with Electroencephalography and Deep Learning. <i>Brain Sciences</i> , 2022, 12, 1416.	1.1	8
406	Detecting distracted students in educational VR environments using machine learning on eye gaze data. <i>Computers and Graphics</i> , 2022, 109, 75-87.	1.4	11
407	Building Networks with a New Cross-Bubble Transition Entropy for Quantitative Assessment of Mental Arithmetic Electroencephalogram. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 11165.	1.3	2

#	ARTICLE	IF	CITATIONS
408	Cognitive load, working memory capacity and driving performance: A preliminary fNIRS and eye tracking study. <i>Transportation Research Part F: Traffic Psychology and Behaviour</i> , 2023, 92, 121-132.	1.8	15
409	Human-robot teaming in construction: Evaluative safety training through the integration of immersive technologies and wearable physiological sensing. <i>Safety Science</i> , 2023, 159, 106019.	2.6	13
410	EEG-Based integrated solution for drivers and safe transportation. , 2022, , .		1
411	The impact of virtual agentsâ€™ multimodal communication on brain activity and cognitive load in Virtual Reality. <i>Frontiers in Virtual Reality</i> , 0, 3, .	2.5	3
412	Effects of decorative pictures on mental processing demands and learning: An EEG and eye-tracking study. <i>Acta Psychologica</i> , 2022, 231, 103798.	0.7	3
413	Quantifying Cognitive Workload Using a Non-Contact Magnetocardiography (MCG) Wearable Sensor. <i>Sensors</i> , 2022, 22, 9115.	2.1	0
414	Predictions of task using neural modeling. <i>Frontiers in Neuroergonomics</i> , 0, 3, .	0.6	0
415	Reliability of MUSE 2 and Tobii Pro Nano at capturing mobile application users' real-time cognitive workload changes. <i>Frontiers in Neuroscience</i> , 0, 16, .	1.4	3
416	Usability Evaluation of BCI Software Applications: A systematic review of the literature. <i>Programming and Computer Software</i> , 2022, 48, 646-657.	0.5	1
417	MLMRS-Net: Electroencephalography (EEG) motion artifacts removal using a multi-layer multi-resolution spatially-pooled 1D signal reconstruction network. <i>Neural Computing and Applications</i> , 2023, 35, 8371-8388.	3.2	7
418	Guidelines for Choosing Cognitive Load Measures in Perceptually Rich Environments. <i>Mind, Brain, and Education</i> , 2023, 17, 20-28.	0.9	3
420	A comparison study between XR interfaces for driver assistance in take over request. <i>Transportation Engineering</i> , 2023, 11, 100159.	2.3	6
421	Virtual Assistant for Automatic Emotion Monitoring using Perceived Stress Scale (PSS). , 2022, , .		2
422	Cognitive load detection using Binary salp swarm algorithm for feature selection. , 2022, , .		2
423	Comparing online cognitive load on mobile versus PC-based devices. <i>Personal and Ubiquitous Computing</i> , 2023, 27, 495-505.	1.9	2
424	Operator State in a Workplace Simulation Modulates Eye-Blink Related EEG Activity. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2023, 31, 1167-1179.	2.7	4
425	Towards a versatile mental workload modeling using neurometric indices. <i>Biomedizinische Technik</i> , 2023, 68, 297-316.	0.9	3
426	Age Differences in Learning-Related Neurophysiological Changes. <i>Journal of Psychophysiology</i> , 2023, 37, 154-167.	0.3	1

#	ARTICLE	IF	CITATIONS
427	Development and Validation of a Theory-Based Questionnaire to Measure Different Types of Cognitive Load. <i>Educational Psychology Review</i> , 2023, 35, .	5.1	10
428	Cognitive Load Measurement Based on EEG Signals. <i>Advances in Computational Intelligence and Robotics Book Series</i> , 2023, , 246-255.	0.4	0
429	A New Electroencephalography Marker of Cognitive Task Performance. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2023, 87, 108-111.	0.1	3
430	I spy with my AI: The effects of AI-based visual cueing on human operators'™ performance and cognitive load in CCTV control rooms. <i>International Journal of Industrial Ergonomics</i> , 2023, 95, 103444.	1.5	1
431	Autonomous grasping of 3-D objects by a vision-actuated robot arm using Brain-Computer Interface. <i>Biomedical Signal Processing and Control</i> , 2023, 84, 104765.	3.5	1
433	Measurement and Analysis of Cognitive Load Associated with Moving Object Classification in Underwater Environments. <i>International Journal of Human-Computer Interaction</i> , 0, , 1-11.	3.3	0
434	Does cognitive aspects of information and material presentation matter in worker allocation in an assembly line? A case study of a recycling unit in India. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2023, 48, .	0.8	0
435	The role of action tendencies in expert anticipation. <i>Asian Journal of Sport and Exercise Psychology</i> , 2023, 3, 30-38.	0.4	4
436	Critical design choices in healthcare simulation education: a 4C/ID perspective on design that leads to transfer. <i>Advances in Simulation</i> , 2023, 8, .	1.0	1
437	Gamification of an n-back working memory task - Is it worth the effort? An EEG and eye-tracking study. <i>Biological Psychology</i> , 2023, 179, 108545.	1.1	2
439	Neuro-Adaptive Interface System to Evaluate Product Recommendations in the Context of E-Commerce. <i>Lecture Notes in Computer Science</i> , 2023, , 50-68.	1.0	0
448	Design and Assessment of a Tool for Improving Creativity and Imagination in School Children. <i>Lecture Notes in Computer Science</i> , 2023, , 631-641.	1.0	0
449	Assessing Cognitive Load in Software Development with Wearable Sensors. , 2023, , .		0
450	Who to Blame-User Interface Design or Learning Content? A Neurophysiological UX Assessment of e-learning Process. <i>Smart Innovation, Systems and Technologies</i> , 2023, , 661-672.	0.5	0
451	The cognitive basis for virtual reality rehabilitation of upper-extremity motor function after neurotraumas. <i>Journal on Multimodal User Interfaces</i> , 0, , .	2.0	0
456	Emerging biometric methodologies for human behaviour measurement in applied sensory and consumer science. , 2023, , 157-190.		0
461	Exploring the potential of eye tracking on personalized learning and real-time feedback in modern education. <i>Progress in Brain Research</i> , 2023, , 49-70.	0.9	0
464	Internal Distraction Detection Utilizing EEG Data in an Educational VR Environment. , 2023, , .		1

#	ARTICLE	IF	CITATIONS
470	Evaluation of Bio-inspired Computational Methods for Measuring Cognitive Workload. , 2023, , 9-26.		0