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Mündliche Prüfung AKEPP -
Lehrstuhl Empirische Bildungsforschung
(Prof. Dr. Roland Brünken, PD Dr. Sarah Malone)
(Stand SS 2023)

Formale Voraussetzungen:

Besuch der AKEPP Vorlesung

Besuch eines AKEPP Seminars bei Prof. Brünken oder Dr. Malone

Formale Voraussetzungen werden durch Prüflinge selbstständig mit Frau Nora Frey (Sekretariat von Prof. Brünken) abgeklärt

Inhaltliche Erwartungen/Literatur

- Kenntnis der Themen der Vorlesung AKEPP
- Kenntnis der Seminarliteratur zu den beiden Inputthemen (CTML, CLT)
- Vertiefte Kenntnis von 3 selbst ausgewählten Artikeln. Bitte spätestens eine Woche vor der Prüfung dem/ der Prüfer/in mitteilen, welche Artikel ausgewählt wurden.

Organisation/Ablauf:

- Mündliche Prüfung (30 min) in Präsenz oder digital über Teams (nach Absprache)
- Individuelle Terminvereinbarung über n.frey@mx.uni-saarland.de
- Vorbesprechung via Teams obligatorisch
- Ablauf:
    o Bei Prüfung über Teams: Vorbereitung der Online-Prüfung: (10 min vor Prüfungsbeginn)
    o Einführungsteil mit allgemeinen Fragen zu Vorlesung AKEPP und zum Seminar (5-10min)
    o Besprechung der ausgewählten Artikel (20-25 min; nicht immer alle 3 Artikel)
    o Rückmeldung (nach Prüfungsende)
    o Gesamtdauer max. 60 min

Literatur(empfehlungen):

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Zur Vorlesung AKEPP:

Brünken, R., Münzer, S. & Spinath, B. (2019). Pädagogische Psychologie: Lehren und Lernen. Göttingen, Hogrefe.

Spinath, B. & Brünken, R.: Pädagogische Psychologie: Diagnostik, Beratung & Evaluation. Göttingen, Hogrefe.

Zum Seminar:

Input 1: CLT:

Sweller, J., van Merrienboer, J. & Paas, F. (2019). Cognitive Architechture and Instructional Design: 20 Years Later. Educational Psychology Review, 31, 261-292.

Kalyuga, S. (2011). Cognitive Load Theory: How Many Types of Load Does It Really Need? Educational psychology Review, 23, 1-19.

Castro-Alonso, J.C., Ginns, P. & Paas, F. (2019). Embodies Cognition, Science Education, and Visuospatial Processing. In: J. C. Castro-Alonso (Ed.). Visuospatial Processing for Education in Health and Natural Sciences. (Chapter: 7). Springer Nature Switzerland. DOI: 10.1007/978-3-030-20969-8_7

Paas, F., & Sweller, J. (2014). Implications of Cognitive Load Theory for Multimedia Learning. In R. Mayer (Ed.), The Cambridge Handbook of Multimedia Learning (Cambridge Handbooks in Psychology, pp. 27-42). Cambridge: Cambridge University Press. doi:10.1017/CBO9781139547369.004

Input 2 CTML:

Mayer, R. (2014). Cognitive Theory of Multimedia Learning. In R. Mayer (Ed.), The Cambridge Handbook of Multimedia Learning (Cambridge Handbooks in Psychology, pp. 43-71). Cambridge: Cambridge University Press. doi:10.1017/CBO9781139547369.005

Schnotz, W. (2014). Integrated Model of Text and Picture Comprehension. In R. Mayer (Ed.), The Cambridge Handbook of Multimedia Learning (Cambridge Handbooks in Psychology, pp. 72-103). Cambridge: Cambridge University Press. doi:10.1017/CBO9781139547369.006

Ainsworth, S. (2014). The Multiple Representation Principle in Multimedia Learning. In R. Mayer (Ed.), The Cambridge Handbook of Multimedia Learning (Cambridge Handbooks in

Psychology, pp. 464-486). Cambridge: Cambridge University Press. doi:10.1017/CBO9781139547369.024

Aktuelle Seminarartikel

Thema 1: Cognitive Load Measurement - Subjektiv

Klepsch, M. & Seufert, T. (2020). Understanding instructional design effects by differenti-ated measu-rement of intrinsic, extraneous, and germane cognitive load. Instructional Science, 48, 45-77.

Klepsch, M., Schmitz, F. & Seufert, T. (2017) Development and Validation of Two Instru-ments Meas-uring Intrinsic, Extraneous, and Germane Cognitive Load. Frontiers in Psychol-ogy, https://doi.org/10.3389/fpsyg.2017.01997

Leppink, J., Paas, F., Van der Vleuten, C., Van Gog, T. & Van Merrienboer, J. (2013) Develop-ment of an instrument for measuring different types of cognitive load. Behavioral Research, 1058-1072.

Thema 2: Cognitive Load Measurement - Objektiv

Korbach, A., Brünken, R., & Park, B. (2018). Differentiating Different Types of Cognitive Load: A Comparison of Different Measures. Educational Psychology Review. DOI 10.1007/s10648-017-9404-8.

Korbach, A., Brünken, R., & Park, B. (2017). Measurement of Cognitive Load in Multimedia Learning: A Comparison of Different Objective Measures. Instructional Science. 45, 515 – 536.

Park, B. & Brünken, R. (2014).: The Rhythm Method: A New Method for Measuring Cogni-tive Load—An Experimental Dual-Task Study. Applied Cognitive Psychology, DOI: 10.1002/acp.3100

Thema 3: Embodied Cognition

Ginns, P., Hu, A. & Bobbis, J. (2020). Tracing enhances problem-solving transfer, but with-out effects on intrinsic or extraneous cognitive load. Applied Cognitive Psychology, DOI: 10.1002/acp.3732

Korbach, A., Ginns, P. Brünken, R & Park, B. (2020). Should learners use their hands for learning? Results from an eye-tracking study. Journal of Computer Assisted Learning, 36, 102-113

Macken, L. & Ginns, P. (2014). Pointing and tracing gestures may enhance anatomy and physiology learning. Medical Teacher. 2014, 36: 596–601. DOI: 10.3109/0142159X.2014.899684

Thema 4: MER

Altmeyer, K., Kapp, S., Thees, M., Malone, S., Kuhn, J., & Brünken, R. (2020). The use of aug-ment-ed reality to foster conceptual knowledge acquisition in STEM laboratory courses—Theoretical background and empirical results. British Journal of Educational Technology. doi: 10.1111/bjet.12900

Malone, S., Altmeyer, K., Vogel, M., & Brünken, R. (2020). Homogeneous and Heterogene-ous Multi-ple Representations in Equation-Solving Problems - An Eye Tracking Study. Jour-nal of Computer Assisted Learning. DOI: 10.1111/jcal.12426.

Ott, N., Brünken, R., Vogel, M., & Malone, S. (2018). Multiple symbolic representations: The combina-tion of formula and text supports problem solving in the mathematical field of propositional logic. Learning and Instruction, 58(C), 88-105.

Thema 5: Emotional Design

Stark, L., Malkmus, E., Stark, R., Brünken, R., & Park, B. (2018). Learning-related emotions in multi-media learning: An application of Control-Value Theory. Learning & Instruction. 58, 42-52.

Knörzer, L., Brünken, R., & Park, B. (2016). Facilitators or suppressors: Effects of experi-men-tally induced emotions on multimedia learning. Learning & Instruction, 44, 97-107.

Park, B., Knoerzer, L., Plass, J. L., & Brünken, R. (2015). Emotional design and positive emo-tions in multimedia learning: An eyetracking study on the use of anthropomorphisms. Computers & Education, 30-42.