認知システム研究室

SDGs達成に向けた取り組み

SUSTAINABLE DEVELOPMENT G⦿ALS

キーワード・研究テーマ　Keywords・Research Themes

■ **熟達化**
Proficiency

■ **心的・脳メカニズム**
Psychological and neural mechanism

■ **言語と行為**
Language and action

言語と行為の熟達化と喪失のメカニズム
Mechanisms of proficiency and loss of language and action

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PROFILE

職 位 Position	准教授・大学院准教授 Associate Professor・Associate Professor at Graduate School	
大学院 Graduate School	電子情報工学コース Electronics and Computer Science Course	
学 位 Degree	博士（学術） Ph.D.	
担当講義科目 Charge of Subjects	コンピュータ概論、データベース Introduction to Computer、Database System	
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FOR MORE

OI Misato

研究概要　Research Outline

認知神経心理学及び教育工学の手法を利用し、言語と行為の熟達化と喪失に関する心的・脳メカニズムの解明及び、関連・補助するシステムの開発を行っています。

Using methods from cognitive neuropsychology and educational engineering, her research focuses on the mental and brain mechanisms related to the proficiencies and losses of language and action, and on the developing related and supporting systems.

進行中の研究内容　Research Contents in Progress

1 第二言語学習におけるジェスチャー産出と理解の有効性を、教師と受講者の両観点から、行動・脳活動データと学習ログで検証し、得られた知見を踏まえて教材を開発する研究を進めています。

This study will examine the effectiveness of gesture production and comprehension in second language learning from both teacher and learner perspectives, through behavioral and brain activity data and learning logs. The goal of this study is to develop learning materials based on the findings.

2 適切なフィードバックが学習を促進することは広く知られています。本研究では、学習ログ分析で抽出した理想的な学習行動パターンに基づくフィードバック方法を開発し、その有効性を脳活動と行動データで検証します。

It is widely known that appropriate feedback promotes learning. In this study, a feedback method will be designed based on the ideal learning behavior pattern extracted from the learning log analysis, and its effectiveness will be examined using brain activity and behavioral data.

最近の研究実績　Recent Research Results

〈著書／Books〉

■ Learning Support Systems Based on Cohesive Learning Analytics. Okubo, F., Yamada, M., Oi, M., et al., Emerging Trends in Learning Analytics: Leveraging the Power of Education Data, In M. S. Khine (Ed.), (pp. 223-248), (2019)

■ Chapter 12 Learning Analytics for e-Book Based Educational Big Data. Ogata, H., Oi, M., et al., Smart Sensors at the IoT Frontier, In H. Yasuura, C. Kyung, Y. Liu, Y. Lin (Eds), (pp. 327-350), (2017)

〈論文／Published Papers〉

■ Wang, J., Shimada, A., Oi, M., Ogata, H., & Tabata, Y. (2020). Development and evaluation of a visualization system to support meaningful e-book learning. Interactive Learning Environments, 1-18.

■ Oi, M., Ito, H., Saito, H., Meng, S., & Palacios, V. A. (2016). Cognitive empathy modulates the visual perception of human-like body postures without imitation. Journal of Cognitive Psychology, 28 (3), 319-328.

■ Oi, M., Saito, H., Li, Z., & Zhao, W. (2013). Co-speech gesture production in an animation–narration task by bilinguals: A near-infrared spectroscopy study. Brain and Language, 125(1), 77-81.