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KSAVEモデルに基づく技術科加工学習を通して育成される汎用的な能力の調査

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Survey of generic skills developed through technology learning based on KSAVE model

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The generic skills proposed by KSAVE model have been required for the 21st century society and the generic skills developed through the technology processing learning were surveyed in based on the learning content included the teaching process of the metal cutting technology. As for the method of the survey, a questionnaire survey was conducted on the relationship between the learning content and generic skills, targeting university students who have already learned the technology and information education.

The result showed that the generic skills related with the learning content of metal cutting technology tended to have a positive relationship evaluated by the five-case method in concept design process and a negative relationship in the producing process involved the practical skill.

Furthermore, as a result of the principal component analysis, the related generic skills are not only classified into three processes of conception, drafting, and production, but also mainly classified into the abilities that can be developed through learning and the abilities of learning method

overlooked the developed abilities.

In addition, based on the results of the principal component analysis, as a result of investigating the relationship with the detailed skill in the KSAVE model, a wide range of skills were extracted in the conceptual stage of designing for metal cutting. In contrast, specific skills such as critical thinking, metacognition, problem solving, and collaborative abilities were extracted in the process of preparation and cutting of production.

Key words

Junior high school technology education, Metal cutting learning, Generic skills, 21st century skills, KSAVE model

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