Graphics Development for the Self-efficacy Scale: 
A Study of Validity and Reliability 

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ABSTRACT Graphs are seen in various fields from engineering to education, they are used in many different kinds  
of areas for various aims. But in either learning or teaching and all the steps of education, graphs have to be  
structured properly according to various conditions. The objective of this study was to develop a reliable and valid  
scale to measure the competencies of graphics class students concerning their graphic developments. The draft  
scale was applied to students, who had taken graphics course. Primarily, it was conducted with a normal distribution  
analysis for reliability and validity of the scale. As a result of these processes, a valid and reliable measurement tool  
of three dimensions and forty-seven items were obtained. Since GDSES analyzes the graphic competencies of  
people who have received a graphics course and helps identify the shortcomings in this topic, the scale can be used  
in various studies.