This study aimed to (1) describe the condition and potency of development of an e-learning model, (2) describe the e-learning portal, (3) analyze the e-learning effectiveness, (4) analyze the efficiency, and (5) analyze the attractiveness of e-learning digital simulation. The method used in this study was a research and development design of simulation in Secondary Vocational Schools (SMK) in Lampung Selatan District. Data were collected using observation, questionnaires, and tests. The collected data were then analyzed using descriptively and t-test. Conclusions of this study are: (1) conditions and potency of the students for independent study were high, so that this was potential to develop an e-learning model for digital simulation subject, (2) an e-learning portal for digital simulation was produced, (3) the effectiveness of this e-learning model increased with an average post-test score of 77.56, with 87% of students achieving KKM, while an average post-test score of 73.30 was for the control class with 30% of students achieving KKM; (4) this e-learning model was 1.3 hours more efficient compared to previous (traditional) learning model; and (5) the attractiveness of e-learning portal for digital simulation was 3.40 with a predicate of being very attractive so that this enables students to increase their learning motivation and creativity.

Keywords: e-learning, digital simulation, learning model