ABSTRAK

PENGEMBANGAN PROTOTIPE PERANGKAT PEMBELAJARAN DARING BERBASIS STEAM DAN *DISCOVERY LEARNING* UNTUK KELAS V TEMA 3 SUBTEMA 3

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Tujuan dari penelitian ini yaitu menjawab kebutuhan guru kelas V Sekolah Dasar akan perangkat pembelajaran daring untuk kegiatan belajar mengajar pada Tema 3 "Makanan Sehat", Subtema 3 "Pentingnya Menjaga Asupan Makanan Sehat", pelajaran 1. Dari hasil observasi dan wawancara terhadap pembudidaya benih ikan gabus, peneliti dijelaskan berbagai manfaat dari ikan gabus untuk kesehatan terutama untuk obat pasca operasi, selain dijelaskan manfaat ikan gabus peneliti juga diajarkan bagaimana proses budidaya serta beberapa olahan dari bahan dasar ikan gabus. Berlandaskan data-data yang diperoleh peneliti berdasarkan kebutuhan guru, peneliti melakukan penelitian pengembangan "Prototipe Perangkat Pembelajaran Daring untuk Kelas V berbasis STEAM dengan model pembelajaran *Discovery Learning*.

Prosedur pengembangan penelitian ini menggunakan *Research & Development (R&D)* dengan beberapa pertimbangan peneliti menggunakan tiga dari lima langkah pengembangan ADDIE yaitu 1) Analisis kebutuhan, untuk mengetahui analisis kebutuhan peneliti membagikan kuesioner kepada lima guru kelas V sehingga mendapatkan informasi bahwa guru membutuhkan perangkat pembelajaran daring tema 3 "Makanan Sehat", subtema 3 "Pentingnya Menjaga Asupan Makanan Sehat", Pembelajaran 1 dengan menggunakan pendekatan STEAM dan model pembelajaran *Discovery Learning*. 2) Desain disusun dengan membuat kisi-kisi terlebih dahulu sebelum membuat Prototipe Pembelajaran Daring. 3) Pengembangan dilakukan dengan menyusun pengembangan prototipe pembelajaran daring, selanjutnya prototipe divalidasi oleh empat validator yang ahli dalam bidangnya, serta melakukan revisi prototipe sesuai saran dan kritik para validator.

Kualitas prototipe dari hasil validasi yang dinilai oleh dosen biologi dan tiga guru kelas V SD mendapatkan skor 3,49 dengan kategori "sangat baik" (dari rentang skala skor 1-4) sehingga produk "Prototipe Perangkat Pembelajaran Daring berbasis STEAM dan *Discovery Learning* untuk kelas V Tema 3 Subtema 3 Pembelajaran 1" layak untuk diujicobakan secara terbatas setelah produk direvisi.

Kata kunci: Prototipe, Perangkat Pembelajaran Daring, STEAM, *Discovery Learning*

ABSTRACT

DEVELOPMENT OF A PROTOTYPE OF STEAM-BASED ONLINE LEARNING DEVICE AND DISCOVERY LEARNING FOR CLASS V THEME 3 SUBTEMA 3

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The aim of this research is to answer the needs of fifth grade elementary school teachers for online learning tools for teaching and learning activities in Theme 3 "Healthy Food", Sub-theme 3 "The Importance of Maintaining Healthy Food Intake", lesson 1. From the results the researchers conducted observations and interviews with cultivators snakehead fish breeding, the researchers explained the various benefits of snakehead fish for health, especially for post-operative medicine. Apart from explaining the benefits of snakehead fish, the researcher were also taught how to cultivate them as well as several preparations from the basic ingredients of snakehead fish. Based on data obtained by researchers based on teacher needs, researchers conducted research on the development of "STEAM-based Online Learning Device Prototype for Class V with the Discovery Learning model."

The procedure for developing this research uses Research & Development (R&D) with several considerations. The researchers used three of the five steps in developing ADDIE, namely 1) Needs analysis, to find out the needs analysis, the researcher gave a questionnaire to five class V teachers so that they got information that teachers needed online learning tools for the theme 3 "Healthy Food", subtheme 3 "The Importance of Maintaining Healthy Food Intake", Lesson 1 using the STEAM approach and Discovery Learning model. 2) The design is prepared by creating a grid first before creating an Online Learning Prototype. 3) Development was carried out by developing an online learning prototype, then the prototype was validated by four validators who were experts in their fields, and revised the prototype according to the validators' suggestions and criticism.

The quality of the prototype from the validation results assessed by the biology lecturer and three fifth grade elementary school teachers received a score of 3.49 in the "very good" category (from a score scale of 1-4) so that the product "Prototype of STEAM-based Online Learning Devices and Discovery Learning for the classroom V Theme 3 Subtheme 3 Learning 1" is suitable for limited testing after the product has been revised.

Keywords: Prototype, Online Learning Tools, STEAM, Discovery Learning