

Digitized Printed Strategic Intervention Material in Science in District I of Antipolo City: Basis for Enhancement Model

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Abstract

Digitization, technology, and scientific education are strong educational reform drivers. Modern educational institutions use computers and the Internet for all their activities. It's everywhere now. Thus, digitally printed science intervention material is crucial in schools and society. Today, digitalized printed materials are the main teaching and learning channel. The Philippine Department of Education (DepEd) uses extracurricular activities to help students who struggle in science, technology, and other subjects. Educators, administrators, and curriculum planners use digitally enhanced printed materials and multimedia instructions to develop every aspect of teaching and learning. This study assessed the validity and acceptability of the Digitized Printed Strategic Intervention Material (DPSIM) in teaching Science as expected against evaluation. The respondents of the study were one (1) Technology Expert, five (5) Science Administrators, and one hundred (100) Science teachers who were described in terms of position, educational attainment, training attended in ICT, teaching experiences, and the ability to handle ICT. The validity is assessed in terms of content, manner of presentation, language and style, and evaluative tools. Acceptability is assessed in terms of clarity, usefulness, suitability, adequacy, and timeliness. Various resources such as books, published studies in the net, and other materials were gathered in the construction of the research questionnaire. Descriptive Statistics such as Mean and Frequency, T-test, and ANOVA were utilized to test the statistical significance of the variables presented. Results revealed that there is no significant difference in the assessment of the two groups (expected and evaluated responses) of respondents on the validity of the Digitized Printed Strategic Intervention Material (DPSIM), but there is a significant difference in the assessment of respondents in terms of acceptability of DPSIM. When respondents were grouped according to their profile in terms of position, educational attainment, training attended in Information Communication Technology (ICT), teaching experience, and the ability to handle ICT in Teaching, it was identified that differences in the responses for validity is brought about by the respondent's difference in ICT training attended and their ability to handle ICT in teaching. The validity of DPSIM is perceived to be a high extent, with Application, Method of Presentation, Language and Style, and Evaluative Tools as the criteria that need further improvement. For the acceptability of DPSIM, there is a significant difference in the responses when grouped according to profile. However, it is worth noting that overall, no criteria were perceived to be needing improvement. Acceptability has also been categorized a very high extent. It concluded that the Digitized Printed Strategic Intervention Material (DPSIM) is an effective tool in teaching Science. The study included that school administrators should evaluate the DPSIM whether its contents conform to the curriculum standards. Teachers should first examine the DPSIM use to determine the contents that align with the objective of the lesson. Parents should support children with technology materials that supplement the lesson; pupils can explore the DPSIM, which promotes independent learning; and future researchers can conduct similar studies that assess developed DPSIM if the same education will be conducted in the future.

Keyword: Digitized Printed Strategic Intervention Material (DPSIM)