



# Inquiry-Based Learning Strategy as Correlates of Independent Learning Skills and Performance in Physical Education

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## Abstract

This study attempted to discover the effects of the use of Inquiry-Based Learning (IBL) in developing the performance of learners in Physical education in terms of knowledge, understanding, comprehension, and application. Using an experimental one group-post-test design, it revealed that the use of IBL was generally acceptable for the learners in terms of self-direction, comprehension, and engagement. Likewise, they agreed that they have developed independent learning skills: cognitive, metacognitive, and affective. Inferential statistics, Pearson correlation, revealed that there is no significant relationship between the perceived use of IBL and the level of performance. Thus, mediation analysis for independent learning skills was no longer considered. Paired sample t-test also provided that IBL as a teaching strategy improved all the indicators for performance in Physical Education. It is therefore recommended that IBL may be used to develop certain skills even for those subjects that are different in nature from mathematics and science.

**Keywords:** *Inquiry-Based Learning, Physical Education, Independent Learning Skills, Correlation*

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## Introduction

The COVID – 19 Pandemic has pushed the education sector, teachers and students alike, to do teaching and learning remotely. This is in observance of the health and safety protocols in response to the emerging infectious disease and mitigating its effects. However, this change in the paradigm on how education is done posed significant challenges to both parties.

One of the said challenges include the independence of learners in terms of learning. Many students were taught in school using expository instruction or using teacher – centered pedagogies, which did not provide opportunities for independent learning, and thus underdeveloped independent learning skills.

Independent learning skills allow learners to be responsible for their own learning. They are the ones that enable learners to own their learning and thus they become independent, making teaching less of a teacher – centered process, rather a self – directed and spontaneous process.

Young children and humans are naturally curious about the world around them. The thirst for knowledge is somewhat insatiable that pushes us to seek out new experiences and challenges and try novel things with utmost enthusiasm (Saltman, 2012). This is the same reason why it is a must to provide a better and quality education for mankind. It is essential to understand the core topic of this paper before discussing its effects on learners' performance. As an educator, inquiry-based learning strategy or method is still hard to facilitate especially for young learners. Moving away from the traditional way of teaching is still a challenge that we tend to overcome over time. The fast pace of change in education challenges most educators to find ways to encourage learners to be more active and involved in the teaching and learning process. Inquiry-based learning is a kind of approach to learning that focuses on the involvement of students in the hunt for their learning. It is a learning model that is student-centered and is in pursuit of a question or a problem. It provides an alternative process of an aural description of autonomy, experience, motivation, and academic challenges (Buchanan,2016).

## Methodology

This study used descriptive correlational design. It is an experimental research design characterized as simply the attempt to establish relationships and check the development of specific skills (Creswell, 2012) while it has also been defined as the systematic study of designing, developing, and evaluating instructional programs, processes, and products that must meet criteria of internal consistency and effectiveness. The critical thinking skills of 100 Grade 7 students

enrolled for the School Year 2022 - 2023 and are under the in-person delivery modality were assessed using a researcher-made independent learning skills test and were compared in terms of the students' scores before and after the use of inquiry based approach. The perception of the respondents as to the quality of the strategy was also described through descriptive measuring designs and treatments.

The researcher used two (2) main instruments: a survey questionnaire and a teacher - made test for Independent Learning Skills. The survey questionnaire was primarily used to measure the perception of the respondents as to the use of IBL. It is divided into three (3) sub indicators, namely level of inquiry, promotion of active learning and allowing for collaboration. Each sub indicator will also have five (5) statements each which was rated using a Likert Scale ranging from 1 to 5 with 5 being the highest.

A test for Independent Learning Skills also be adapted. It had four (3) parts, one for each skill: Cognitive skills, Metacognitive skills, and Affective skills.

Prior to the gathering of data needed for the study, the researcher crafted a survey questionnaire and a independent learning skills test. It was followed by securing necessary permit to conduct the study through the letter of request. A letter to the school principal was submitted and approved. Subsequently, the researcher proceeded to the actual phase of the study. The study covered three phases: the pre-assessment, the implementation and the post assessment stages.

For the pre-assessment, it started with the crafting of the research instruments such as survey questionnaire to measure the perception on Inquiry Based Learning and Independent Learning Skills Test. Such has gone validation process through a panel of experts. This was done to measure the initial level of skills of the learners.

The implementation stage was the center of the study. In this phase, the researcher used the IBL on a regular basis for at least six (6) weeks for quarter 3 of school year 2022 - 2023.

In the post assessment, the respondents again took the independent learning skills test as well as answer the evaluation questionnaire for IBL Approach to identify its strengths and different areas for improvement. From the gathered results, data analysis shall be performed. The data gathered will undergo statistical analysis and interpretation.

To decide on the actual results of the study and its findings, descriptive and inferential statistics were used. In order to describe the perception of the respondents as to the use of IBL

Approach, mean and standard deviation, frequency, percentage will be used. to describe the level of skills of the respondents before and after the use of IBL. For the inferential statistics, Pearson-moment product correlation was used to determine whether the perception of the learners relate significantly to their level of independent learning skills and to find whether there is a significant difference in the participants' level of independent learning skills before and after the use of IBL, paired samples t-test was applied. All inferential statistics were done at five percent (5%) level of significance. T-test be applied for test of difference between the pre and post-test performance in Physical Education.

## **Findings**

The following are the significant findings of this study: the respondents generally strongly agreed that the use of IBL as a teaching strategy was beneficial for them, and that in terms of their perceived level of independent learning skills, the same can be said. The performance of the respondents in the pretest are generally described as poor and fair, but after the use of IBL, they shifted to satisfactory, very satisfactory and outstanding ranges.

All skills, knowledge, understanding, comprehension, and application were developed through the use of IBL. Generally, no significant relationship was noted between the perceived use of IBL and the performance in Physical Education except for knowledge to engagement, and application to self – direction and comprehension.

## **Conclusion**

From the findings, the following conclusions are hereby drawn: The students greatly accept the use of IBL in Physical Education, IBL can be an effective tool or strategy in developing the level of performance of the students in terms of knowledge, comprehension, understanding, and application. Pre-test has a lower scores compared to post-test scores of the learners after using the IBL. There is a significant difference on the performance of students in Physical Education before and after the use of IBL.

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