

## ABSTRACT

A Study of Chemistry Teaching and Learning for Hearing Impaired Students  
By Using Multimedia

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In this experimental research investigation, the researcher examines the instruction and study of chemistry for a hearing-impaired student using multimedia. The researcher also compares the academic achievement of this student prior to the commencement and after the completion of this study.

The research population was a hearing-impaired student who had registered to study in the field of Teaching Chemistry at Ramkhamhaeng University (RU), Hua Mak, Bang Kapi, Bangkok Metropolis.

The research instruments consisted of an academic achievement test on acid-base solutions and an observation form used to evaluate instructional capacity in four aspects. These aspects were explaining technical terms; selecting instructional media; the composing of lesson plans; and evaluation through applications of the authentic assessment method.

The data were analyzed in two ways utilizing techniques of descriptive statistics. Thus, the data for the academic achievement test on acid-base solutions used percentage and the data for the capacity of instruction on acid-base solutions used frequency.

Findings are as follows:

1. The academic achievement of the student differed prior to the commencement and after the completion of the study. Academic achievement after the completion of the study was evinced at a higher level than prior to its commencement.

2. In respect to the evaluation of instruction on the subject of “explaining technical terms,” the level was at “needs improvement.” On the other hand, insofar as concerns the evaluation of the subjects of “selecting instructional media” and “composing lesson plans,” the levels were both at the “fair” level.