



PHILIPPINE NORMAL UNIVERSITY
The National Center for Teacher Education

**TEACHING SCIENCE BEYOND SPECIALIZATION: PROBLEMS AND
CHALLENGES**

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ABSTRACT

Keywords: TEACHING SCIENCE, PROBLEMS ENCOUNTERED,
TEACHERS' SELF-EFFICACY

This study was conducted to identify the problems encountered by the non- General Science major teachers and their self- efficacy based on the two dimensions in teaching science beyond specialization in Junior High School in Bayugan City Division for school year 2016-2017. There were 30 respondents involved in this study coming from the nine high schools in Bayugan City Division. This study used a researcher made structured interview questionnaire as research instrument which was validated by the group of experts and was rated with a very high validity. The instrument was composed of the different areas such as: the profile of the respondents, problem encountered in terms of content organization and delivery, instructional material development, instructional strategies used and assessment method. Teachers' self-efficacy was determined using the Riggs and Knochs Science Teaching Efficacy Belief Instrument. Data were analyzed using frequency distribution and mean. The findings of the study revealed that in terms of content organization and delivery, the teachers encountered problems in teaching Chemistry and Physics for they do not have an in depth content knowledge in teaching these subjects. Teachers have to be multi-specialists and multi-skilled to teach the subject effectively. It offers a great challenge in lesson preparation and in teaching the topics when teaching beyond specialization. When it comes to instructional material development there were problems encountered due to lack of time preparation, cost and availability of the



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materials. Moreover, the teachers do not have problems in using instructional strategies and as well as in the assessment method. This study found out that teachers are well guided with the policy guidelines on classroom assessment. The study further revealed that teachers have moderate level in personal teacher efficacy and high level of teaching outcome expectancy. It is recommended that the proposed training designed by the researcher should be implemented to increase the content knowledge of the non-General Science major teachers in teaching Chemistry and Physics subjects.



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ABSTRAK

Mga Susing-Salita: PAGTUTURO NG AGHAM, MGA SULIRANING NATAGPUAN,
KAKAYAHAN NG MGA GURO

Ang pag-aaral na ito ay isinagawa upang matukoy ang mga suliraning naranasan ng mga gurong nagtuturo ng General Science ngunit di nila medyor ito at ang kanilang sariling kakayahan batay sa dalawang dimensyon sa pagtuturo ng Agham sa Junior High School ng Dibisyon ng Lungsod ng Bayugan, taong panuruan 2016-2017. Kasali ang tatlumpong (30) respondent sa pag-aaral mula sa siyam (9) na hayskul ng nabanggit na dibisyon. Gumamit ang mananaliksik ng *structured interview questionnaire* bilang instrument na na-balideyt at nabigyan ng mataas na baliditi ng mga ekspert. Binubuo ang instrument ng profayl ng mga respondent, suliraning nakita sa pagbuo ng nilalaman at sa pagtuturo, pagdebelop ng kagamitang pampagtuturo, mga estratehiyang ginamit at pamaraan ng pagtataya. Sa pagtataya ng kakayahan ng guro ay ginamit ang instrument nina Riggs and Knochs na *Science Teaching Efficacy Belief Instrument*. Sinuri naman ang datos gamit ang *frequency distribution at mean*. Natuklasan sa pag-aaral na ito na may suliranin ang mga guro sa pagtuturo ng mga asignaturang Chemistry at Physics dahil wala silang sapat na kaalaman ukol dito. Upang maging mabisa ang pagtuturo, dapat taglay nila ang maraming espesyalisasyon at mga kasanayan. Isang malaking hamon ang paghahanda at pagtuturo ng mga paksang di sakop ng napag-aralang espesyalisasyon. Sa paghahanda naman ng mga kagamitang pampagtuturo, nakitang suliranin ang pagiging gahol sa oras, gastos at mga kakailanganing materyal. Bilang karagdagan, walang nakitang suliranin ang mga guro sa mga ginamit na estratehiya at pagtataya sa pagtuturo. Natuklasan sa pag-aaral na ang

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mga guro'y maayos na nagabayan ng mga pamatnubay sa pagtatayang pangklasrum.

Nakita ring may katamtamang lebel ang mga guro sa sariling kakayahan at mataas na lebel naman sa inaasahang bunga ng pagtuturo. Inirekomenda ng pag-aaral na ang panukalang desinyo ng pagsasanay ay maisakatuparan upang lumawak ang kaalamang pangnilalaman sa mga asignaturang Chemistry at Physics.

