

Critically Evaluate the Voice Education and Voice Care in Teacher Training

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Abstract: Kovacic's research is very important since voice disorders are common among teachers and it is a very fascinating problem to explore. Voice disorders have an extremely bad influence on the teachers' ability to teach in practice. The research report consists of six parts: Introduction, Method, Results, Discussion, Other reports and future directions, and Conclusion. The aim of this paper is to critically analyze and evaluate the method section of Kovacic's research, discuss the strengths and weaknesses of main research approaches and techniques used by the author from the following three perspectives: sampling, research method and questionnaire materials, and then propose the effective measures to improve this research.

Keywords: Kovacic; Voice Disorders; Teachers' Ability;

1. Introduction

In the study *Voice education in teacher training: an investigation into the knowledge about the voice and voice care in teacher-training students*, the researcher Kovacic take the teacher training students from the University of Zagreb in Croatia as an example to investigate some issues about the voice and voice care. The study demonstrates that it's quite necessary to have preventive voice programs for teaching professions in order to enhance the learning process in schools as well as teacher's vocal endurance and ability.

2. Analysis of the Method Section

Since Kovacic devised a questionnaire for the study among teacher-training students from the University of Zagreb, the method section will be critically analysed detailedly from three aspects below: sampling, research method and questionnaire materials.

2.1 Sampling

In an investigation into sampling, Cohen, Manion, and Morrison (2011) found that several key factors need to be taken into account in sampling, including the sample size, the representativeness and parameters of the sample, access to the sample, the sampling strategy to be used and the kind of research that is being undertaken^[2].

2.1.1 The sample size for the research is inappropriate.

The first thing I want to emphasize is the appropriateness of sample size, which is a tricky question that often puts many researchers in a dilemma. In Kovacic's study, the 184-sample population is much smaller than it should be for all students of teaching professions in Croatia despite the fact that it is not necessary that a large size sample guarantees representativeness. As for quantitative research, Cohen et al. (2011) suggest that the larger the sample size is the better on account of greater reliability and more complicated statistics being used. Table 1 indicates the sampling method and details of Kovacic's study [2].

2.1.2 The sample representativeness couldn't be guaranteed.

The representativeness of the sample is a key factor that cannot be ignored. Cohen et al. argue that it is necessary to consider regulating the weightings of subgroups in the sample when the data have been gathered. In Kovacic's study, not only the female students account for the 85.9% of total number, over 6 times as males, but also their mean ages are 22.34 and 22.80. It can be noticed from the table 1 that female students are over-represented and male students are under-represented. At the same time, age range and experience in teaching of these subjects cannot represent all the teacher-training students in Croatia.

3. Research method

In Kovacic's study, a questionnaire concerning voice and voice care was designed to ask teacher-training students and respondents of other occupations questions of abusive habits on voice, attitudes to speaking habits and voice health, and some basic knowledge on voice and the protection. The questionnaire is a regularly used and helpful instrument for collecting numerical data, offering structured, often useful information, being able to be underway in case that the researcher is not present, and usually being correspondingly straight-forward to analyse (Wilson and McLean, 1994). As we can note from the Kovacic's research, dichotomous questions are used in the questionnaire survey, which is a type of typical quantitative method.

However, it is a pity that qualitative method hasn't been used in this research. Qualitative method provides embedded, sophisticated and detailed information about meanings, actions, non-observable or observable phenomena, attitudes, purposes and behaviours. One of the biggest advantages is to give voices to respondents, and explores problems that lie behind the face of presenting intentions and behaviors.

3.1 Quantitative method has been used by Kovacic.

The study along with a questionnaire about voice care is identified as a typical kind of quantitative research, which concerns data collection process, mainly leading to numerical data and being analysed and assessed by using probability statistics methods.

Firstly, quantitative research provides clear statistical data for induction and plunks for larger sample size which switches to more generalizability over the subjects being studied. We can get the evidence from Table 2, which is a typical questionnaire illuminating the proportions of the correct answers. Secondly, the skilled using of questionnaire, a kind of quantitative method, by Kovacic in the study demonstrates that his research is systematic, tightly controlled, and labor-intensive. Thirdly, it's much easier for the author to collect data and get the right results he needs in a short time. Oppenheim (1992) suggested that well-structured, closed questions are helpful since they can create frequencies of response followed by statistical treatment and analysis [3]. Then the comparisons can be made across groups among samples. Cohen et al (2011). argue that the dichotomous question, which belongs to quantitative method, is very useful, because it requires subjects to 'come off the fence' about an issue [2]. It offers a clear, unambiguous response. Moreover, it is meaningful to process responses fast, considering that there are only two types of responses.

It is noteworthy that the quantitative method in itself have some disadvantages, which by no means be ignored. One of the disadvantages is that, quantitative method provides fewer personal considerations of an assumed lived experience, because it

is statistical based.

3.2 Lack of qualitative methods in his research.

In comparison with quantitative research, more in-depth, intricate, and comprehensive information of behaviors or attitudes is offered by qualitative research, which overcomes the weaknesses of just using the true-false questionnaire. Creswell (1994) indicated that qualitative method involves a research procedure of comprehending on the basis of distinct methodological traditions of research that explore a social or human issue [1]. The author builds a complicated, holistic picture, analyzes expressions, reports in-depth views of respondents, and conducts the study in a natural setting. Qualitative research is empirical research where the data are not in the form of numbers.

Unfortunately, qualitative method hasn't been found in Kovacic's study. Qualitative research, mostly an exploratory research, is often used to acquire a deeper understanding of underlying reasons, opinions, hypotheses or motivations, and dive deeper into problems because it gives voices to participants. If the author could use interview in his research, it would have been much more expressive.

4. Questionnaire Materials

Cohen et al. point out that validity is an important key to effective research (2011) [2]. Being invalid means the research is meaningless, so validity is a necessary condition for both quantitative and qualitative research. Validity is essential in a questionnaire, which means that researchers need to make their decisions in accordance with evidence or the validity of studies, for instance, internal validity, external validity and construct validity. Similarly, reliability is also very important because it couldn't be separated with validity.

4.1 The questionnaire materials are not valid and reliable.

Porte (2002) suggests that research materials have to be devised to report what they are supposed to represent if we want them to be valid in a particular data-gathering context [4]. It is vital that no matter what procedure is used for collecting information has both acceptable validity and reliability. The questionnaire materials in Kovacic's research are not valid. As we can see from the article that some items like "Smoking affects voice", "Screaming can harm the voice", "Voice fatigue is a phenomenon that happens exclusively to opera singers" are all belong to common knowledge, which cannot be used as questionnaire items.

4.2 Only closed questions are selected in the Questionnaire.

Kovacic designed a 20-item true-false assessment instrument (dichotomous questions) for the research, and it belongs to closed questions, which specify the range of options from which the subject might select. Oppenheim (1992) argued that highly structured, closed questions are helpful because they can create frequencies of response followed by statistical treatment and analysis [3]. Then the comparisons can be made across groups in the sample.

Generally speaking, closed questions are quick to finish and straight-forward to code such as computer analysis. At the same time, they don't discriminate excessively based on how articulate subjects are. On the other hand, there are no remarks, qualifications and explanations to the categories can be added by respondents, and the risk is that the categories maybe not detailed and that there could be bias in them.

5. Conclusion

The Kovacic's research was critically analysed from the method section: sampling, research method and the questionnaire materials. Among these, sampling was discussed in the first place, and followed by analyses of the research methods. In the sampling section, it shows that the sample size for the research is inappropriate; the sample representiveness couldn't be guaranteed; non-probability samples shouldn't have been used. In the research method section, even though the quantitative method, which makes the study systematic, tightly controlled, and labor-intensive, has been used by Kovacic, the lack of qualitative methods in his research is a non-ignorable fact. At the same time, the questionnaire materials are not valid and

reliable.

By analyzing the Kovacic's research report, some advises are summed up to the future studies. Firstly, it would be more convictive to critically analyse the method section by comparing it with a case study in which used quantitative method and qualitative method at the same time; or doing a similar research by my own. Secondly, it could be done on the basis of the author's study, showing my own opinions, and then unearthed the differences in the method section, analyzing it with both literature references and my own experiences in a critical way. The research could be better and more forceful if the appropriate samples have been selected and used by combining quantitative method and qualitative method together based on good questionnaire materials.

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