Chapter 22

Proposal to Conduct Experimental Research on the Effects of Language Style and Voice Type of a Pedagogical Agent on Fifth Grade Learning and Motivation

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Learning Objectives

After reading this chapter and considering the issues, you will be able to:

1. Describe the research question / problem in the introduction.

2. Summarize in your own words orally or in writing the gist of the literature review, including the theoretical framework to support the questions, problem, or need.

3. Describe the gist of the methodology, including:
   a. The participants [e.g., level, prerequisites, prior knowledge of the dependent variable under consideration, motivation to learn, intrinsic benefits, better job, etc.]
b. The materials in depth [e.g., online, tools, software utilities, workbooks, writing materials, verbal instructions, etc.]

c. The research design [e.g., hypotheses, sampling method] variables [e.g., dependent, independent]

d. The instrumentation [e.g., written test, time stamping, dribble files, interview questions, written work, method of segmentating protocols, etc.]

e. The procedure, [e.g., “the procedure in this study followed those suggested in previous studies of this kind (reference)],” and summary

4. Describe the gist of the results, including:

a. The methods in collecting the data

b. The methods used in analyzing the data

c. Pre-test results of prior knowledge

d. Predisposition to study style or modality

e. Post-test results of treatment effects

f. Delayed or retention test results

5. Write a brief statement:

a. Linking previous research to the results arising from the analyses of the data

b. Conclusions of the study

c. Contributing factors

d. Implications of the study

e. Limitations of the study

f. Recommendations, and a summary

6. State whether or not the references in text and in the list follow the current APA standard.

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**Abstract**

The proposed research will further explore the effects of language style and speech type on student learning and motivation in agent-based multimedia settings. Inspired by several recent studies on post-secondary student learning in agent-based multimedia settings, this research will compare the effects of language style (conversational or formal) and speech type (human or machine-synthesized) on elementary students’ learning retention, transfer and motivation. It is expected that instruction with human speech in a conversational language style will promote better learning retention, transfer, and motivation than will instruction with machine-synthesized speech in a formal language style.