6. Discussion and Further Research

In this study, a descriptive statistical analysis of the type, function and quality of the graphical representations in 12-Bahrain cycle-2 primary science textbooks and workbooks was performed. The results of this study suggest that all graphic forms were represented. Most forms of graphics are represented across all from topic areas. About 70% of graphical representations are general, 36% belong to life science topic area, 10% to environmental science, 3% to earth science and 31% to physical science. Results also showed that less than one third of the graphics were of the more analytic forms; more than one third served a specific cognitive purpose; 39% were well connected to the text; 87% were indexically referenced. Two third of the graphics were decorative; 76% were static representations; 13% were not indexically referenced; and 7% did not have captions.

This summation shows that graphics were primarily added to the text to make it more appealing to the teachers and students. There was an absence of maps and scale diagrams. Analysis also showed that indigenous graphics represented about 65% while foreign graphics represented 35% of the total graphics. Male representations made 77% of the graphics, while female ones made 23% of them. Future work is underway, taking into account the gender equity issues, the readability level, the questioning levels and the scientific vocabulary loads. Research is being performed in order to examine the connection between graphical representations and students' achievements and attitudes toward science.

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