**Appendix B**

**Cronbach’s alpha coefficient**

Table 1: Factors (Roles of the educational audiologist) and Corresponding Cronbach’s Alpha Coefficients

|  |  |  |  |
| --- | --- | --- | --- |
| Factor | Items | Number of items | Cronbach’s alpha |
| Factor 1: Instructional team members | V10: Role of educational audiologist - It is the role of educational audiologists to train teachers to support learners with hearing loss.  V11: Role of educational audiologist - It is the role of educational audiologists to collaborate with other professionals when managing learners with hearing loss.  V14: Role of educational audiologist - Educational audiologists should provide appropriate suggestions for classroom accommodations to support learners with hearing loss. | 3 | 0.802 |
| Factor 2: Service coordinator | V12: Role of educational audiologist - Educational audiologists are responsible for providing appropriate hearing devices to learners with hearing loss.  V19\_RS: Role of educational audiologist - It is not the role of educational audiologists to ensure learners with hearing loss have the appropriate hearing devices (reverse-scored) | 2 | 0.624 |
| Factor 3: Consultants | V15: Role of educational audiologist - When managing learners with hearing loss, educational audiologists have a responsibility to work in partnership with other health professionals (e.g., educational psychologists, speech-language therapists, etc.)  V18\_RS: Role of educational audiologist - Educational audiologists are not responsible for providing information about hearing loss to teachers (reverse-scored) | 2 | 0.630 |

Table 2: Factors (responsibilities of educational audiologist) and Corresponding Cronbach’s Alpha Coefficients

|  |  |  |  |
| --- | --- | --- | --- |
| Factor | Items | Number of items | Cronbach’s alpha |
| Factor 1: Habilitation of learners with hearing loss | V21: Responsibilities of educational audiologist - Educational audiologists have to assess learners’ functional listening performance.  V24: Responsibilities of educational audiologist - It is the responsibility of educational audiologists to facilitate group activities with learners with hearing loss.  V25: Responsibilities of educational audiologist - It is the responsibility of educational audiologists to ensure that recommendations are followed by the team managing learners with hearing loss. | 3 | 0.756 |
| Factor 2: Ensuring optimal function of learners’ hearing devices | V23: Responsibilities of educational audiologist - Educational audiologists should ensure that learners' hearing devices are operating optimally.  V31: Responsibilities of educational audiologist - It is the responsibility of educational audiologists to ensure that learners’ hearing devices are functioning optimally. | 2 | 0.875 |
| Factor 3: Identification of learners with hearing loss | V20: Responsibilities of educational audiologist - Administering a school-based hearing screening program is the responsibility of educational audiologists.  V27: Responsibilities of educational audiologist - Educational audiologists should be in charge of managing a school-based hearing screening program. | 2 | 0.807 |

**Spearman correlations for frequency of service delivery and self-reported competency**

Table 3: Spearman correlations for classroom observations

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V32: How often do you provide this service - Observation in the classroom of school-aged children |
| V42: How competent do you feel in providing these services - Observation in the classroom of school-aged children | rs | 0.621\* |
| p | <0,001 |
| N | 60 |

\* p-value < 0.05, statistically significant

Table 4: Spearman correlations for providing classroom recommendations

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V33: How often do you provide this service - Providing classroom recommendations to teachers, e.g., carpets, curtains, etc. |
| V43: How competent do you feel in providing these services - Providing classroom recommendations to teachers, e.g., carpets, curtains, etc. | rs | 0.442\* |
| p | <0,001 |
| N | 61 |

\* p-value < 0.05, statistically significant

Table 5: Spearman correlations for administering a school-based hearing screening program

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V34: How often do you provide this service - Administering a school-based hearing screening program |
| V44: How competent do you feel in providing these services - Administering a school-based hearing screening program | rs | 0.428\* |
| p | 0,001 |
| N | 60 |

\* p-value < 0.05, statistically significant

Table 6: Spearman correlations for collaboration with other health professionals.

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V35: How often do you provide this service - Collaboration with other health professionals (e.g., speech-language therapists) |
| V45: How competent do you feel in providing these services - Collaboration with other health professionals (e.g., speech-language therapists) | rs | 0.525\* |
| p | <0,001 |
| N | 61 |

\* p-value < 0.05, statistically significant

Table 7: Spearman correlations for providing hearing aids for school-aged children

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V36: How often do you provide this service - Providing hearing aids for school-aged children |
| V46: How competent do you feel in providing these services - Providing hearing aids for school-aged children | rs | 0.448\* |
| p | <0,001 |
| N | 61 |

\* p-value < 0.05, statistically significant

Table 8: Spearman correlations for providing assistive listening devices for school-aged children.

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V37: How often do you provide this service - Providing assistive listening devices for school-aged children |
| V47: How competent do you feel in providing these services - Providing assistive listening devices for school-aged children | rs | 0.626\* |
| p | <0,001 |
| N | 61 |

\* p-value < 0.05, statistically significant

Table 9: Spearman correlations for evaluation of classroom acoustics

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V38: How often do you provide this service - Evaluation of classroom acoustics |
| V48: How competent do you feel in providing these services - Evaluation of classroom acoustics | rs | 0.559\* |
| p | <0,001 |
| N | 60 |

\* p-value < 0.05, statistically significant

Table 10: Spearman correlations for collaboration with parents in managing learners with hearing loss

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V39: How often do you provide this service - Collaboration with parents in managing the learner with hearing loss. |
| V49: How competent do you feel in providing these services - Collaboration with parents in managing the learner with hearing loss. | rs | 0.551\* |
| p | <0,001 |
| N | 61 |

\* p-value < 0.05, statistically significant

Table 11: Spearman correlations for teacher training

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V40: How often do you provide this service - Teacher training (e.g., providing information on different degrees of hearing loss and activities to improve learners’ listening skills) |
| V50: How competent do you feel in providing these services - Teacher training (e.g., providing information on different degrees of hearing loss and activities to improve learners’ listening skills) | rs | 0.572\* |
| p | <0,001 |
| N | 61 |

\* p-value < 0.05, statistically significant

Table 12: Spearman correlations for hearing loss prevention

|  |  |  |
| --- | --- | --- |
| Spearman correlations | | V41: How often do you provide this service - Hearing loss prevention (e.g., developing a hearing conservation program, access to hearing protection devices, classroom presentation on the prevention of hearing loss) |
| V51: How competent do you feel in providing these services - Hearing loss prevention (e.g., developing a hearing conservation program, access to hearing protection devices, classroom presentation on the prevention of hearing loss) | rs | 0.465\* |
| p | <0,001 |
| N | 61 |

\* p-value < 0.05, statistically significant

**Spearman correlations for exploratory factor analysis of roles and responsibilities of the educational audiologist.**

***Roles of educational audiologist***

Table 13: Spearman correlation for educational audiologists as instructional team members

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | V10: Role of educational audiologist - It is the role of educational audiologists to train teachers to support learners with hearing loss. | V11: Role of educational audiologist - It is the role of educational audiologists to collaborate with other professionals when managing learners with hearing loss | V14: Role of educational audiologist - Educational audiologists should provide appropriate suggestions for classroom accommodations to support learners with hearing loss. |
| V10: Role of educational audiologist - It is the role of educational audiologists to train teachers to support learners with hearing loss. | rs | 1.000 | 0.565\* | 0.368\* |
| p |  | <0.001 | 0.003 |
| n | 64 | 64 | 64 |
| V11: Role of educational audiologist - It is the role of educational audiologists to collaborate with other professionals when managing learners with hearing loss | rs | 0.565\* | 1.000 | 0.372\* |
| p | <0.001 |  | 0.003 |
| n | 64 | 64 | 64 |
| V14: : Role of educational audiologist - Educational audiologists should provide appropriate suggestions for classroom accommodations to support learners with hearing loss. | rs | 0.368\* | 0.372\* | 1.000 |
| p | 0.003 | 0.003 |  |
| n | 64 | 64 | 64 |

\*Statistically significant (*p* < 0.05)

Since all the p-values < 0.05, all correlations are statistically significant and range from 0.368 to 0.565.

Table 14: Spearman correlation for educational audiologists as service coordinators

|  |  |  |  |
| --- | --- | --- | --- |
|  | | V12: Role of educational audiologist - Educational audiologists are responsible for providing appropriate hearing devices to learners with hearing loss. |  |
| V19\_RS: Role of educational audiologist - It is not the role of educational audiologists to ensure learners with hearing loss have the appropriate hearing devices (reverse-scored) | rs | 0.572\* |  |
| p | <0.001 |  |
| n | 64 |  |

\*Statistically significant (*p* < 0.05)

Since the p-value < 0.05, the correlation of 0.572 between V12 and V19\_RS is statistically significant.

Table 15: Spearman correlation for educational audiologists as consultants

|  |  |  |
| --- | --- | --- |
|  | | V15: Role of educational audiologist - When managing learners with hearing loss, educational audiologists have a responsibility to work in partnership with other health professionals (e.g., educational psychologists, speech-language therapists, etc.) |
| V18\_RS: Role of educational audiologist - Educational audiologists are not responsible for providing information about hearing loss to teachers (reverse-scored) | rs | 0.426\* |
| p | <0.001 |
| n | 64 |

\*Statistically significant (*p* < 0.05)

Since the p-value < 0.05, the correlation of 0.426 between V15 and V18\_RS is statistically significant.

***Responsibilities of EA***

Table 16: Spearman correlation for habilitation of learners with hearing loss

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | V21: Responsibilities of educational audiologist - Educational audiologists have to assess learners’ functional listening performance. | V24: Responsibilities of educational audiologist - It is the responsibility of educational audiologists to facilitate group activities with learners with hearing loss. | V25: Responsibilities of educational audiologist - It is the responsibility of educational audiologists to ensure that recommendations are followed by the team managing learners with hearing loss. |
| V21: Responsibilities of educational audiologist - Educational audiologists have to assess learners’ functional listening performance. | rs | 1.000 | 0.468\* | 0.434\* |
| p |  | <0.001 | <0.001 |
| n | 64 | 64 | 64 |
| V24: Responsibilities of educational audiologist - It is the responsibility of educational audiologists to facilitate group activities with learners with hearing loss. | rs | 0.468\* | 1.000 | 0.617\* |
| p | <0.001 |  | <0.001 |
| n | 64 | 64 | 64 |
| V25: Responsibilities of educational audiologist - It is the responsibility of educational audiologists to ensure that recommendations are followed by the team managing learners with hearing loss. | rs | 0.434\* | 0.617\* | 1.000 |
| p | <0.001 | <0.001 |  |
| n | 64 | 64 | 64 |

\*Statistically significant (*p* < 0.05)

Since all the p-values < 0.05, all correlations are statistically significant and range from 0.434 to 0.617.

Table 17: Spearman correlation for ensuring optimal function of learners' hearing devices

|  |  |  |
| --- | --- | --- |
|  | | V23: Responsibilities of educational audiologist - Educational audiologists should ensure that learners' hearing devices are operating optimally. |
| V31: Responsibilities of educational audiologist - It is the responsibility of educational audiologists to ensure that learners’ hearing devices are functioning optimally. | rs | 0.767\* |
| p | <0.001 |
| n | 64 |

\*Statistically significant (*p* < 0.05)

Since the p-value < 0.05, the correlation of 0.767 between V23 and V31 is statistically significant.

Table 18: Spearman correlation for Identification of learners with hearing loss

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | V13: Responsibility of educational audiologist - It is important for educational audiologists to provide hearing screening services in a specialized education setting | V17: Responsibility of educational audiologist - It is important for educational audiologists to provide hearing screening services in a general (mainstream) education setting. | V20: Responsibilities of educational audiologist - Administering a school-based hearing screening program is the responsibility of educational audiologists. |
| V17: Responsibility of educational audiologist - It is important for educational audiologists to provide hearing screening services in a general (mainstream) education setting. | rs | 0.514\* |  |  |
| p | <0.001 |  |  |
| n | 64 |  |  |
| V20: Responsibilities of educational audiologist - Administering a school-based hearing screening program is the responsibility of educational audiologists. | rs | 0.560\* | 0.577\* |  |
| p | <0.001 | <0.001 |  |
| n | 64 | 64 |  |
| V27: Responsibilities of educational audiologist - Educational audiologists should be in charge of managing a school-based hearing screening program. | rs | 0.445\* | 0.515\* | 0.656\* |
| p | <0.001 | <0.001 | <0.001 |
| n | 64 | 64 | 64 |

\*Statistically significant (*p* < 0.05)

Since the p-value < 0.05, the correlation of 0.656 between V20 and V27 is statistically significant.

**Mann-Whitney test results: Combined roles & responsibilities of the educational audiologist**

Table 19: Mann-Whitney results of the roles of the educational audiologist

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MW | Z | p-value | Sig diff |
| Educational audiologist as instructional team member | 203,500 | -1,670 | 0,095 | No |
| Educational audiologist as service coordinator | 269,500 | -0,011 | 0,999 | No |
| Educational audiologists as consultants | 179,500 | -2,325 | 0,023 | Yes |

\* statistically significant = p value < 0.05

Table 20: Mann-Whitney results of the responsibilities of the educational audiologist

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MW | Z | p-value | Sig diff |
| Habilitation of learners with hearing loss | 234,500 | -0,774 | 0,446 | No |
| Ensuring optimal function of learners’ hearing devices | 264,500 | -0,131 | 0,906 | No |
| Identification of learners with hearing loss | 178,000 | -1,996 | 0,046 | Yes |

\* statistically significant = p value < 0.05