# Development and psychometric validation of Malay version of Parental Report on Auditory Training (MyPRAT) questionnaire for clinical use.

**Mohd Normani ZAKARIA[1], Bahram JALAEI[2], Dinsuhaimi SIDEK[3]**
**[1]Audiology Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia**
**[2]Department of Audiology, Faculty of Rehabilitation Sciences, Iran University of Medical Sciences, Tehran, IRAN**
**[3]Department of Otorhinolaryngology, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia**

## ABSTRACT

**Introduction:** For promoting optimum speech and language development, children with sensorineural hearing loss are required to use hearing amplification devices and undergo a specific auditory training program. The aim of the study was to develop and validate a new questionnaire for documenting the progress of the auditory training among Malay hearing impaired children. **Materials and Methods:** In the first phase of this validation study, Malay version of Parental Report on Auditory Training (MyPRAT) questionnaire was developed accordingly. In the second phase, the validity and reliability of MyPRAT were determined. Specifically, its content validity ($n$=9), face validity ($n$=33) and construct validity ($n$=11) were tested. For reliability analysis, its internal consistency was determined by means of item-total correlation, Cronbach's alpha and split-half reliability. **Results:** As reported by clinical experts, content validity index (CVI) values of MyPRAT were high (0.78-1.00) indicating excellent content validity. The face validity of MyPRAT was adequate as the majority of respondents (>80%) rated the format, content and language use of MyPRAT as "good". Items in Part A of MyPRAT were highly correlated with Meaningful Auditory Integration Scale (MAIS) scores ($r$=0.86, $p$<0.001) indicating good construct validity of MyPRAT. The internal consistency of MyPRAT questionnaire was good as revealed by item total correlations (0.43-0.97), Cronbach's alpha (0.90-0.92) and split-half reliability (0.96-0.98).**Conclusion:** The newly developed MyPRAT questionnaire has been proven to be valid and reliable for its intended clinical applications. Nevertheless, further research is welcome to support the outcomes obtained from the present study.

**Keywords: Hearing loss, Language therapy, auditory, questionnaire, Reproducibility of results**

**Correspondence author:** Dr. Mohd Normani Zakaria, Audiology Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, MALAYSIA
Tel: 609-7677691, Fax: 609-7677515,
Email: mdnorman@usm.my

## INTRODUCTION

Having an intact hearing ability is vital in communication. If the hearing system is compromised, the quality of life can be tremendously affected. Hearing loss, in fact, is common in children and adults. [1-3] If untreated, it

can lead to various adverse consequences including speech delay, language impairment, poor academic achievement and poor psychosocial development. [1, 4, 5]

Hearing impairment can be divided into three types, namely conductive hearing loss, sensorineural hearing loss and mixed hearing loss. While the conductive hearing losses are mostly treatable medically and surgically, the sensorineural hearing loss is permanent and the use of hearing amplification devices such as hearing aids or cochlear implants is required. [6]

For promoting optimum speech and language development, children with congenital sensorineural hearing loss must be treated as early as possible. [7] After being fitted with the appropriate amplification devices, they need to undergo a specific auditory training program. Speech language pathologists are the main clinical professionals who provide an intensive speech therapy program for hearing impaired children. Following the dedicated auditory training program, improvements in hearing and speech skills should be noted.

Having validated questionnaires is useful to document the progress of the intervention. Many clinical questionnaires are available but are not without limitations. As an effort to cover relevant aspects of audition and speech, some of them can be long and complicated to be completed by the parents. [8, 9] In fact, not many validated questionnaires are available in Malay language. Meaningful Auditory Integration Scale (MAIS) and Meaningful Use of Speech Scale (MUSS) are examples of questionnaires that have been validated in Malay version. [10] They have been frequently used in hearing intervention studies. [11-13]

Based on the aforementioned issues, there is a need to have a simpler questionnaire to determine the treatment effect of the auditory training. This questionnaire should be short and easy to be filled in by the parents of hearing-impaired children. It should cover specific improvements of auditory skills and parents' satisfaction on the overall therapy program. The present study, hence, was carried out to develop and validate a new questionnaire, known as Parental Report on Auditory Training (PRAT) using specific psychometric validation techniques. Specifically, the Malay version of PRAT (MyPRAT) was studied and tested for its validity and reliability.

## MATERIALS AND METHODS

All procedures performed in the present study were approved by Human Ethics Committee of Universiti Sains Malaysia (USM), which is in accordancewith the Helsinki Declaration of 1975 and its later amendments. This validation study had two consecutive phases. The first phase was about developing MyPRAT content and the validation of MyPRAT was carried out in the second phase. In the first phase, five clinical experts (1 otorhinolaryngologist, 2 audiologists, 2 speech language pathologists) aged 36-56 years (3 males and 2 females) and one male post-graduate student (aged 54 years old) were involved in this task. The appropriate items for the questionnaire were initially constructed in English version based on the literatures, available clinical questionnaires and clinical experiences of the experts. To ensure cultural appropriateness, relevant cultural factors were considered when choosing the items. After several meetings and discussions, the items of PRAT were finalized. It consists of two sections: Part A and Part B (Appendices 1A and 1B, respectively). Both sections have five closed-ended questions and one open-ended question. For the closed-ended questions, a 5-point response scale (1-5) is used (1 indicates "strongly disagree", 2 indicates "disagree", 3 indicates "unsure", 4 indicates "agree" and 5

indicates "strongly agree"). The Part A of PRAT questionnaire consists of items covering specific improvements of auditory and related skills. The report on the overall satisfaction of the auditory training is provided in the Part B of PRAT.

The English version of PRAT questionnaire was then translated into Malay version by language experts from School of Languages, Literacies and Translation, USM. The Malay version of PRAT (MyPRAT) questionnaire had been developed and was ready for subsequent validation tasks (Appendices 2A and 2B).

In the second phase of study, the validity and reliability of the newly developed MyPRAT questionnaire were determined. Specifically, the content validity, face validity and construct validity of MyPRAT were tested. The internal reliability (consistency) of MyPRAT questionnaire was determined by calculating its item-total correlation, Cronbach's alpha and split-half reliability.

In the content validity task, nine clinical experts were invited to give their expert opinions on MyPRAT questionnaire. In this task, content validity index (CVI) was measured to determine the content validity of MyPRAT questionnaire in a more objective manner. [14] The clinical experts were instructed to state their opinion on the relevancy of each close-ended item of MyPRAT by choosing one of the following options: 1 for "not relevant", 2 for "somewhat relevant", 3 for "relevant" or 4 for "highly relevant".

To ensure that MyPRAT can be conveniently administered among Malaysian population, the face validity of MyPRAT was determined in 33 subjects with diverse backgrounds. The sample size was calculated based on the known central limit theorem (i.e. at least 30 subjects are required to produce data with normal distribution) and 10% drop-out rate. Herein, they were instructed to provide comments on MyPRAT questionnaire in terms of its format, content and language use. Specifically, they were asked to rate MyPRAT questionnaire as "good", "unsure" or "poor". All of them were selected randomly among students and staff members of USM.

In the next task, by using convenience sampling, eleven Malay hearing impaired children (aged 3 to 9 years) who have been undergoing conventional auditory training programs (for at least 3 months) in Hospital Universiti Sains Malaysia were selected. Their respective parents were instructed to fill in MyPRAT questionnaire for providing comments on the effectiveness of the auditory training. Prior to this, a short briefing was given to them on how to answer the questionnaire. They were advised to give honest answer for each question. For determining the construct validity of MyPRAT, the parents were also required to fill in the Malay version of MAIS questionnaire. [10] The score for each item as well as the total score were recorded for each subject for both questionnaires.

***Data analysis***

Descriptive and inferential statistical analyses were carried out as applicable. For the content validity task, both item-level CVI (I-CVI) and scale-level CVI (S-CVI) were calculated based on the method proposed by Lynn. [14] Specifically, for each of MyPRAT items, the I-CVI was calculated by dividing the number of experts who rated 3 or 4 (on the 4-point relevance scale) by the total number of experts. The S-CVI was determined by averaging all 10 I-CVI values of MyPRAT (Part A and Part B). The data for face validity task were analyzed descriptively.

Since the data were found to be normally distributed (as shown by Kolmogorov Smirnov test, $p>0.05$), parametric analyses could be carried out. For determining the construct validity of MyPRAT questionnaire, Pear-

son product-moment analysis was used to determine the correlation between MyPRAT and MAIS questionnaire. For determining the internal consistency of MyPRAT questionnaire, Cronbach's alpha and Guttman split-half reliability were measured. The Pearson correlation analysis was also used to determine the item-total correlations of MyPRAT questionnaire. The resultant *p* values of less than 0.05 were considered statistically significant. All data analyses were carried out using the SPSS software version 20 (SPSS Inc, Chicago, IL).

## RESULTS

After being developed and translated, the MyPRAT questionnaire underwent several validity and reliability tasks. Recall that in the content validity task, nine experts were involved (mean age of 40.4 ± 8.2 years) and the majority of them were males (67%). Two of them were otorhinolaryngologists, three were audiologists and four were speech language pathologists.

In this task, the I-CVI values for MyPRAT items were found to be high and ranged from 0.78 to 1.00. The lowest I-CVI (0.78) was found for Q2 and Q4 in Part B. The S-CVI (or S-CVI/Ave) that provides a general measure of content validity of MyPRAT questionnaire was found to be excellent (0.91).

In the face validity task, 33 participants (mean age of 32.6 ± 11.8 years) were recruited. The majority of them were females (66.7%). In terms of occupation, 30.3% of them were university students, followed by cleaners (18.2%), housewives (15.2%), unemployed individuals (15.2%), cafe workers (12.1%) and teachers (9.0%). Malay participants are the majority (63.6%), followed by Chinese (24.2%) and Indian (12.2%) respondents. Figures 1 to 3 reveal the outcomes of the face validity task.

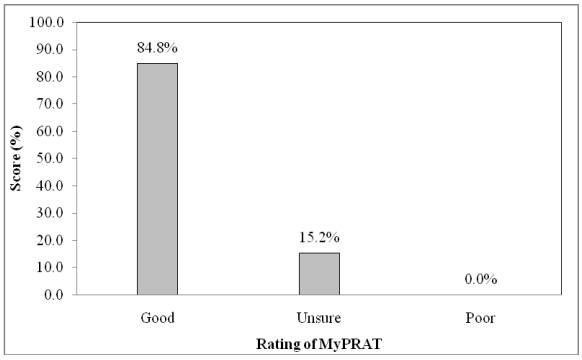


**Figure 1:** Respondents' rating of MyPRAT in terms of its format (in percentage).

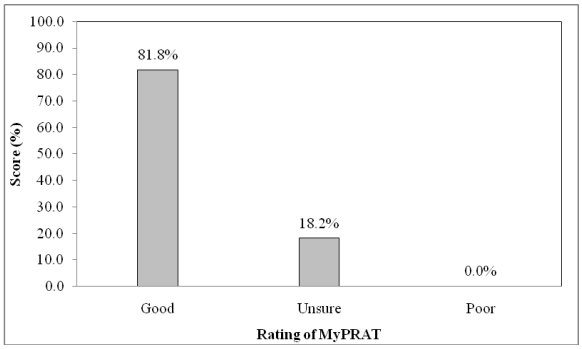


**Figure 2:** Respondents' rating of MyPRAT in terms of its content (in percentage).

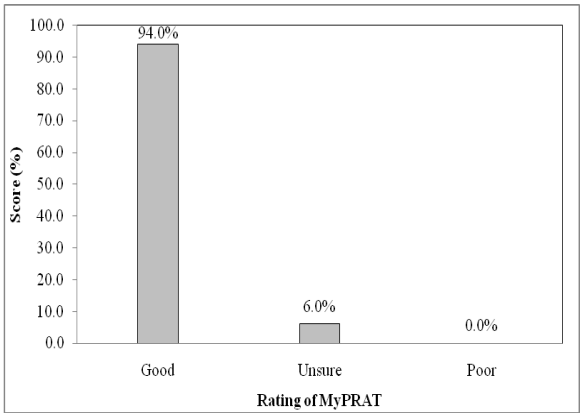


**Figure 3:** Respondents' rating of MyPRAT in terms of its language use (in percentage).

As revealed in Figure 1, most of the respondents rated the format of MyPRAT questionnaire as "good" (84.8%). The rest of participants were unsure of the suitability of MyPRAT format (15.2%). Similarly, as illustrated in Figure 2, the majority of participants rated the content of MyPRAT as "good" (81.8%), while 18.2% of them rated the MyPRAT content as "unsure". In terms of language use of MyPRAT questionnaire, nearly all participants (94.0%) rated MyPRAT as

"good" (Figure 3). Only 6.0% of respondents were unsure of the language use of MyPRAT. For all three aspects, none of respondents rated MyPRAT questionnaire as "poor".

Table 1 shows the mean, standard deviation and range of total scores for MyPRAT and MAIS questionnaires. A strong correlation was found between the scores in Part A of MyPRAT questionnaire and the scores in MAIS questionnaire ($r$=0.86, $p$<0.001). In contrast, the scores in Part B of MyPRAT questionnaire were not correlated with the MAIS scores ($r$=0.55, $p$=0.079).

**Table 1:** Mean, standard deviation (SD) and range of scores for MyPRAT and MAIS questionnaires.

| | MyPRAT | | MAIS |
|---|---|---|---|
| | **Part A** | **Part B** | |
| **Mean (SD)** | 16.5 (4.4) | 17.2 (4.0) | 18.2 (3.2) |
| **Range** | 8 - 22 | 10 - 21 | 14 - 24 |

To determine the reliability of MyPRAT, its internal consistency was measured. As shown in Table 2, for Part A, its item-total correlation ranged between 0.43 and 0.97. For Part B of MyPRAT, the item-total correlations were from 0.72 to 0.91 (Table 2). The Cronbach's alpha values for both parts of MyPRAT were found to be high (0.90 for Part A and 0.92 for Part B). These findings are further supported by the high values of Guttman split-half reliability coefficients (0.98 for Part A and 0.96 for Part B) indicating good test reliability of MyPRAT questionnaire.

## DISCUSSION

A newly developed instrument must be proven valid and reliable prior to its application. Validity is simply defined as the ability of the instrument to measure what it is purporting to measure. [15] On the other hand, reliability is defined as the ability of the instrument to measure repeatedly the same results and be internally consistent. [15] Recall that the present study was conducted to develop and validate an alternative questionnaire that is simpler to be administered among parents. To determine the effectiveness of intervention method, parental report and judgment can be useful. Herein, the parental reports have been shown to be valid and reliable in regard to children's communicative abilities. [16, 17] Moreover, in evaluating speech skills, a strong correlation was found between parental judgments of their children's skills and the results of speech language pathologist. [18]

The items of MyPRAT questionnaire were chosen based on specific requirements. For simplicity, it is comprised of only 12 questions divided into two parts. For each closed-ended

**Table 2:** Internal consistency analyses of MyPRAT items.

| **Item of MyPRAT** | | **Item-total correlation** | **Cronbach's alpha** | **Cronbach's alpha if item is deleted** | **Split-half reliability** |
|---|---|---|---|---|---|
| **Part A** | Q1 | 0.95 | 0.90 | 0.87 | 0.98 |
| | Q2 | 0.97 | | 0.85 | |
| | Q3 | 0.95 | | 0.87 | |
| | Q4 | 0.97 | | 0.85 | |
| | Q5 | 0.43 | | 0.98 | |
| **Part B** | Q1 | 0.72 | 0.92 | 0.96 | 0.96 |
| | Q2 | 0.89 | | 0.90 | |
| | Q3 | 0.91 | | 0.88 | |
| | Q4 | 0.91 | | 0.88 | |
| | Q5 | 0.91 | | 0.88 | |

item, the 5-point Likert scale rating was used. Among the options, 5-point and 7-point Likert scales are commonly used in the questionnaires. [19] Questionnaires that utilize lower response categories (less than 5-point) might be less accurate than the ones with higher response options. Conversely, questionnaires with higher response categories (7-point and more) might cause confusions to respondents and the response time can be prolonged. [20] Therefore, the 5-point response category utilized in MyPRAT questionnaire was considered optimum.

In order to validate MyPRAT questionnaire, several validity and reliability tasks were carried out. In the content validity task, content validity index (CVI) was measured to determine the clinical experts' opinion on MyPRAT questionnaire. As suggested by Lynn, [14] in order to achieve acceptable content validity, the I-CVI should be more than or equal to 0.70. In the content validity task where 6 to 10 experts are involved, the content validity of a particular questionnaire can be considered excellent if the I-CVI and S-CVI are at least 0.78 and 0.90, respectively. [21] Recall that in the present study, nine clinical experts were involved. As revealed, I-CVI values for MyPRAT items were high (ranged from 0.78 to 1.00) and none of the item was below 0.78. Furthermore, the S-CVI for MyPRAT was also high (0.91). Based on the high I-CVI and S-CVI values, the MyPRAT questionnaire can be said to have excellent content validity.

Since MyPRAT questionnaire is self-administrated, its format, content and language must be appropriate and understandable to people with various backgrounds, cultures and educational levels. To serve this, the face validity of MyPRAT questionnaire was determined. As revealed, the majority of respondents (> 80%) rated the format, content and language of MyPRAT to be good. Furthermore, all respondents never rated MyPRAT items as "poor". This shows that the MyPRAT questionnaire has good face validity.

The MyPRAT questionnaire was also found to have good construct validity (particularly for items in Part A) as its scores were highly correlated with the scores in MAIS questionnaire. Since the auditory skills and behaviors are adequately covered by both questionnaires, the high correlation between them was sensible. When the scores in Part B of MyPRAT were compared with the MAIS scores, no significant correlation was found between them. This finding was also expected as the items in Part B of MyPRAT questionnaire measure different aspects of auditory training (that are not covered by MAIS questionnaire). In this regard, it seems advantageous to have MyPRAT questionnaire as specific auditory improvements (Part A) and the overall satisfaction on the auditory training (Part B) can be conveniently documented.

In the present study, the reliability of MyPRAT questionnaire was determined by measuring its internal consistency. As shown, the lowest item-total correlation (0.43) was found for Q5 in Part A. This value, nevertheless, is higher than the minimum recommended value. That is, for an item to be considered appropriate and internally reliable, its item-total correlation must be more than 0.20. [22] The good reliability of MyPRAT is further supported by Cronbach's alpha and split-half reliability outcomes. In general, to achieve acceptable internal consistency, the Cronbach's alpha value should be more than 0.70. [23] In the current study, the Cronbach's alpha values were high (>0.90) implying that the items of myPRAT questionnaire are internally consistent and reliable.

The present study is not without limitations. Since the study sample was small, factor analysis of MyPRAT questionnaire could not be conducted to further support its construct validity. This is subject to further large-

large-scale research. Furthermore, only quantitative data were analyzed in the present study. To further explore the usefulness of MyPRAT questionnaire, its open-ended questions should also be analyzed accordingly.

## CONCLUSION

In conclusion, an effort has been made to develop and validate an alternative questionnaire to document the progress of auditory training among Malay hearing impaired children. After undergoing a series of validity and reliability tasks, the MyPRAT questionnaire has been proven to be valid and reliable for its intended applications. Nevertheless, future studies are welcome to further support findings obtained from the present study.

## REFERENCES


1: Bess F, Dodd-Murphy J, Parker R. Children with minimal sensorineural hearing loss: Prevalence, educational performance, and functional status. Ear Hear 1998;19:339-54.
2: Lin BM, Curhan SG, Wang M, Eavey R, Stankovic KM, Curhan GC. Hypertension, Diuretic Use, and Risk of Hearing Loss. Am J Med 2016;129:416-22.
3: Amieva H, Ouvrard C, Giulioli C, Meillon C, Rullier L, Dartigues JF. Self-Reported Hearing Loss, Hearing Aids, and Cognitive Decline in Elderly Adults: A 25-Year Study. J Am Geriatr Soc 2015;63:2099-104.
4: Pavri S. Loneliness in children with disabilities. Teaching Exceptional Children 2001;33:52-8.
5: Lieu JE. Speech-language and educational consequences of unilateral hearing loss in children. Arch Otolaryngol Head Neck Surg 2004;130: 524–30.
6: Peters JP, Ramakers GG, Smit AL, Grolman W. Cochlear implantation in children with unilateral hearing loss: A systematic review. Laryngoscope2016;126:713-21.
7: Yoshinaga-Itano C, Sedey AL, Coulter DK, Mehl AL. Language of early- and later-identified children with hearing loss. Pediatrics 1998;102:1161-71.
8: Purdy SC, Farrington DR, Moran CA, Chard LL, Hodgson SA. A parental questionnaire to evaluate children's Auditory Behavior in Everyday Life (ABEL). Am J Audiol 2002;11:72-82.
9: Anderson KL. ELF: Early listening function. Tampa, FL: Educational Audiology Association; 2002. Accessed on 31 March 2017. Available at https://www.phonakpro.com/content/dam/phonak/b2b/Pediatrics/Junior_Reports/Fitters/com_elf_questionnaire_gb.pdf
10: Mukari SZM, Abdul Hamid B. Penilaian Respons Auditori kepada Pertuturan. Bangi: Penerbit Universiti Kebangsaan Malaysia; 2008. ISBN: 9679427765, 9789679427769.
11: Umat C, Siti Hufaidah K, Azlizawati AR. Auditory functionality and early use of speech in a group of pediatric cochlear implant users. Med J Malaysia 2010;65:7-13.
12: Fernandes NF, Yamaguti EH, Morettin M, Costa OA. Speech perception in users of hearing aid with auditory neuropathy spectrum disorder. Codas 2016;28:22-6.
13: Pianesi F, Scorpecci A, Giannantonio S, Micardi M, Resca A, Marsella P. Prelingual auditory-perceptual skills as indicators of initial oral language development in deaf children with cochlear implants. Int J Pediatr Otorhinolaryngol 2016;82:58-63.
14: Lynn MR. Determination & quantification of content validity. Nurs Res 1986;35:382-5.
15: Sharma M, Petosa RL. Measurement and evaluation for health educators. Burlington, MA: Jones & Bartlett Learning; 2014. ISBN: 978-1-4496-2820-8, 1-4496-2820-6
16: Thal D, Jackson-Maldonado D, Acosta D. Validity of a parent-report measure of vocabulary and grammar for Spanish-speaking toddlers. J Speech Lang Hear Res 2000:43;1087-100.
17: Rescorla L, Alley A. Validation of the language development survey (LDS): a parent report tool for identifying language delay in toddlers. J Speech Lang Hear Res 2001;44:434-45.
18: Hadley PA, Rice ML. Parental judgments of preschoolers' speech and language development: A resource for assessment and IEP planning. Semin Speech Lang 1993;14:278-88.
19: Matthews TD, Kostelis KT. Designing and conducting research in health and human performance. San Francisco: Jossey-Bass; 2011. Accessed on 31 March 2017. Available at https://leseprobe.buch.de/images-adb/22/7b/227b2083-4438-4397-8dcc-fa7455387bdc.pdf
20: Preston CC, Colman AM. Optimal number of response categories in rating scales: reliability, validity, discriminating power, and respondent preferences. Acta Psychol 2000;104:1-15.
21: Polit DF, Beck CT. The content validity index: are you sure you know what's being reported? Critique and recommendations. Res Nurs Health 2006;29:489-97.
22: Elson JL, Cadogan M, Apabhai S, Whittaker RG, Phillips A, Trennell MI, et al. Initial development and validation of a mitochondrial disease quality of life scale. Neuromuscul Disord 2013; 23:324-29.
23: Bradley C. Handbook of psychology and diabetes: a guide to psychological measurement in diabetes research and practice. Chur Switzerland: Harwood; 1994.

**Appendix 1A: MyPRAT Questionnaire (Part A-English)**

**Parental Report on Auditory Training (PRAT)**

1-*Strongly Disagree* 2-*Disagree* 3-*Unsure* 4-*Agree* 5-*Strongly Agree*

**Part A**

1. My child is more responsive to environmental sounds (e.g. sounds of telephone, animal sounds etc.) after undergoing the auditory training program

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

2. My child is more responsive to speech sounds after undergoing the auditory training program

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

3. My child uses hearing a lot to communicate after undergoing the auditory training program

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

4. My child's listening skills become better after undergoing the auditory training program

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

5. My child's other skills (e.g. concentration, social etc.) become better after undergoing the auditory training program

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

6. Five improvements of skills that are observed (if any):

_____

_____

_____

_____

_____

**Appendix 1B: MyPRAT Questionnaire (Part B-English)**

**Part B**

1. I am satisfied with my child's progress after undergoing the auditory training program

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

2. I am satisfied with the service given by the clinician/student who performs the auditory training

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

3. This auditory training should be conducted on every hearing impaired child

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

4. I would recommend this auditory training to others

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

5. Overall, I am satisfied with this auditory training program

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

6. State your specific opinions on this auditory training.

_____

_____

_____

_____

_____

**Appendix 2A: MyPRAT Questionnaire (Part A-Malay)**

**Malay version of Parental Report on Auditory Training (MyPRAT)**

1-*Sangat Tidak Bersetuju* 2-*Tidak Bersetuju* 3-*Tidak Pasti* 4-*Bersetuju* 5-*Sangat Bersetuju*

**Part A**

1. Anak saya lebih responsif kepada bunyi persekitaran (bunyi telefon, bunyi binatang dsb.) selepas mengikuti program latihan auditori

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

2. Anak saya lebih responsif kepada bunyi pertuturan selepas mengikuti program latihan auditori

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

3. Anak saya lebih banyak menggunakan pendengaran untuk berkomunikasi selepas mengikuti program latihan auditori

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

4. Kemahiran mendengar anak saya menjadi lebih baik selepas mengikuti program latihan auditori

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

5. Kemahiran lain anak saya (penumpuan, sosial dsb.) menjadi lebih baik selepas mengikuti program latihan auditori

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

6. Lima peningkatan kemahiran yang diperhatikan (jika ada):

_____

_____

_____

_____

_____

**Appendix 2B: MyPRAT Questionnaire (Part B-Malay)**

**Part B**

1. Saya berpuashati dengan perkembangan anak saya selepas menjalani latihan auditori

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

2. Saya berpuashati dengan perkhidmatan yang diberikan oleh ahli klinikal/pelajar yang menjalankan latihan auditori ini

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

3. Latihan auditori ini bagus dilakukan pada setiap kanak-kanak bermasalah pendengaran

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

4. Saya akan mencadangkan latihan auditori ini kepada orang lain

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

5. Secara keseluruhan, saya berpuashati dengan program latihan auditori ini

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

6. Nyatakan pendapat spesifik anda terhadap latihan auditori ini:

_____

_____

_____

_____

_____