Educational Impact Matrix for Students Who are Deaf or Hard of Hearing Pilot Data Collection Summary

October 2012

Feedback was accepted from the field related to items on the *Educational Impact Matrix for Students who are Deaf or Hard of* Hearing during the 11-12 SY. Changes to the form included: In the Academic/Vocational Performance section, using the terms "State Assessment" and "State Alternative Assessment." In the Audiological section, "Normal middle ear function" was deleted from column 1 and "Fluctuating Hearing Loss" was moved from column 2 to column 3. These minimal changes should not impact pervious and future scores. Based on feedback, the "Contributing Factors" section has been revised. Several Factors were removed: Attendance, Interpreter/Captionist, Age of Student, and Program Demands. These were very infrequently used and can be considered under "Other" if the Matrix users believe these are important factors.

From September 2011 to June 30 2012, additional data was collected electronically from persons using the *Educational Impact Matrix for Students who are Deaf or Hard of Hearing.* Michigan teacher consultants contributed 64 matrix data sets and 2 additional states added 18 more student data sets. In each data analysis, the service level was compared with the ranges of Educational Impact Scores. The service ranges were compiled by: All NEW DATA, NEW Michigan DATA only, OUT-OF-STATE DATA only, OLD and NEW Michigan DATA. These were compared with the OLD SERVICE RANGES. The data in the table below shows that using Michigan new data and Michigan combined data that the REVISED SERVICE RANGES should remain the same as the OLD SERVICE RANGE. Higher Educational Impact Scores were often identified with students who had additional disabilities and this matrix was not designed for that service determination. Out of state students received more services at each impact score level, however, their state models may be different.

EDUCATIONAL IMPACT MATRIX DATA COLLECTION SUMMARY October 2012 Ranges are listed in minutes/week for uniformity.						
Impact Scores	OLD RANGES	NEW DATA (Michigan only)	ALL MI DATA (old and new)	NEW DATA (MI & other states)	OUT of STATE (no ranges)	REVISED RANGES (same as previous)
0-8	0 (7)-14	13-24	8-16	14-23	17	0-14
9-16	9-20	14-22	10-20	17-24	34	9-20
17-24	21-37	20-36	21-35	39-50	81	21-37
25-32	35-50	21-39	28-45	91-103	233	35-50

August 2011

From January until June 15, 2011, data was collected using the *Educational Impact Matrix for Students who are Deaf or Hard of Hearing* from teacher consultants for students who are Deaf/Hard of Hearing (DHH) throughout Michigan. Responses were received from all five (5) regions. Thirty-eight (38) teacher consultants responded with an average of six (6) matrices submitted by each teacher consultant. Two hundred twenty-five (225) matrix reports were received with one hundred seventy-seven (177) matrices containing the data on Matrix Scores and service levels needed for analysis.

Sorting and Analysis of Data:

- If a Matrix score was available and service time was not reported, the response was not counted.
- Several Matrices had scores of ZERO. The Teacher Consultants provided these reasons:
  - The student was not on their caseload.
  - The student was transferred to a 504 plan.
  - The student was new to this team/location.

- Several respondents noted that their students who received scores of 30 or above were being placed in programs.
- If the score and service level were significantly different from the other scores in the category AND the respondent had noted that the student had significant additional needs or was age 3 or younger, the score was not included. Data from the Vision Services Scale, the Orientation & Mobility Scale and the previous version of the DHH form (Oakland Schools) indicated that additional forms are needed for those populations.
- If a previous IEP service range and a new IEP service range were provided, the most current data was used.
- Scores were more varied than we expected. The variations may be the result of teacher consultants who
    - Provide only indirect service,
    - Provide similar services levels to most students on their caseload,
    - Decertify students and place them on 504 plans,
    - Need to fit a specific number of students into their schedules,
    - Work in a variety of school settings (SXI programs, resource rooms),
    - Serve students who are geographically close/distant,
    - Are the only service provider,
    - Are influenced by other external parameters.

Survey Data Summary to Determine Range of Services

One hundred seventy-seven (177) matrices were used to compare service levels and Educational Impact Matrix Scores. *Table 1, Matrix Scores and Service Times*, shows the range of Matrix scores compared with the number of responses and the service times in minutes per month. Seventy-four (42%) of the students' scores were in the 9-16 range of educational impact. Fifty-five (31%) of the students' scores were in the 17-24 range. Thirty-eight (22%) of the students' scores were in the 0-8 range and only ten (6%) were in the 25-32 range. The average of the minimum scores and the average of the maximum scores are reported. The range from minimum to maximum is also reported and it is noted that as the Matrix Impact Score increases so do the minimum and maximum minutes/month of current service. The mode minimum and maximum are also reported for the Matrix range of scores. Although services were reported by week, month, or year, all scores were converted to use minutes per month for comparability purposes and finally to minutes per week for the matrix student profile. Data indicates that the range of

service times increases as the Matrix Impact Score increases, but that there is also some overlap. *Table 2, Educational Impact Profile Ranges*, represents the current ranges of services that students in Michigan are currently receiving with the representative ranges of scores.

Table 1, Matrix Scores and Service Times (minutes/month)

Range of Matrix Scores	**0-8**	**9-16**	**17-24**	**25-32**
Number of Responses (177)	38 (22%)	74 (42%)	55 (31%)	10 (6%)
Average- Minimum to Maximum Minutes/month	28 -55 min/mo	37-80 min/mo	83-150 min/mo	138-200 min/mo
Range- Minimum to Maximum Minutes/month	0-120 min/mo	1.5- 240 min/mo	10-480 min/mo	60-360 min/mo
Mode- Minimum to Maximum Minutes/month	15 min/mo- 8 20 min/mo-8 60 min/mo-15	20 min/mo= 20 60 min/mo= 18	30 min/mo=8 120min/mo=18	60 min/mo =4 240 min/mo =4 120 min/mo =2 360 min/mo=2 180 min/mo =2

Range-minutes/week	0-14 minutes per WEEK	9-20 minutes per WEEK	21-37 minutes per WEEK	35-50 minutes per WEEK

Table 2, Educational Impact Profile Ranges

Impact Score	**Suggested Range of Service in Minutes/Week***
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
0-8	
6-16	
17-24	
25-32	

Of the one hundred-seventy seven (177) responses, fifty (50) matrices provided information from a previous IEP and the current IEP. *Table 3, Comparison of IEP Services* shows the data. Students who had matrix scores in the lower ranges most frequently received the same or decreased services with the new IEP. Students with matrix scores in the highest range tended to receive an increase of services. Students who had Matrix Impact Scores above 22 generally had additional disabilities; one student transferred to a DHH program and another was transferring into the public school system. We are unable to determine if the Matrix influenced the decrease in scores, but the tool does allow teacher consultants to use data for IEP team service consideration. Some service times increased while others decreased.

Table 3, Comparison of IEP Services

DHH Matrix-Comparison of Services from Previous IEP to Current IEP					
DHH Matrix Impact Scores	Service Increase from previous to current IEIP	Service Decrease from previous IEP to current IEP	Services remained the SAME	Total	
0-8	0	5	4	9	
9-16	2*	10	7	19	*move-in, change of level
17-24	5*	4	9	18	>22 consult & direct; Multiple Disabilities
25-32	3	0	1	4	Multiple Disabilities
Total	10	19	21	50	

DHH Matrix Scores were compared with the age of the students and the data is seen in *Table 4, DHH Matrix Score and Student Age.* Two hundred-twenty-five responses included the students' age. The greatest number of students reported was in the 6-18 year old range with scores of 9-24 (bold italics). Percentages represent the percent of the total for each age range across the rows. The total column shows percentages of the column totaling 225. Note that the 1-5 year and 19+ age ranges comprise a minimal part of the total. Comments and data from the BVI and O&M sheets indicate that this tool may not be appropriate for use with very young children.

Table 4, DHH Matrix Score and Student Age

Comparison of DHH Matrix Score with AGE of Student					
Impact Scores	0-8	9-16	17-24	25-32	Total
1-5 years	2 (11%)	8 (44%)	4 (22%)	4 (22%)	18 (8%)
6-9 years	21 (27%)	***26 (34%)***	***21(27%)***	9 (12%)	77 (34%)
10-13 years	16 (23%)	***28 (40%)***	***23 (32%)***	4 (6%)	71 (32%)
14-18 years	11(20%)	***21 (38%)***	***19 (34%)***	5 (9%)	56 (25%)
19+	0	1 (33%)	1 (33%)	1 (33%)	3 (1%)
Total	50 (22%)	84 (37%)	68 (30%)	23 (10%)	225

After the data was collected and analyzed, the range of services chart (Table 2) was added to the Student Profile page of the matrix as a guideline to assist IEP teams.

ELECTRONIC SURVEY DATA COLLECTION
Educational Impact Matrix for Students who are Deaf or Hard of Hearing

In June 2011, a short electronic survey was sent to teacher consultants for student who are Deaf/HH to provide feedback on the Matrix. Thirty-seven (37) responses were received. Seventeen (17) ISDs and all five educational regions were represented.

Thirty-two percent (32.4%) of the respondents did not complete any Educational Impact Matrices for Students who are Deaf or Hard of Hearing. Thirty-three percent (33.3%) of these twelve respondents stated they had insufficient time to complete the Matrix. Other reasons that the matrix was not used included: concerns about the purpose of the data, not wanting to use it, not being allowed to use it, unclear directions, and job description with an evaluation and consultation assignment (no direct service).

Sixty-eight percent (67.6%) of the respondents had completed matrices with forty percent (40%) of respondents completing 6 or more and fifty-six percent (56%) completing 2-5 matrices. The top reasons for using the Matrix were personal preparation for an IEP (68%) and as a guide for the discussion of service delivery (48%). Forty-four percent (44%) of respondents reported that it was a useful method for gathering data. Additionally, teacher consultants stated that it assisted with report writing (16%) and encouraged them to look at additional data (16%).

When asked to rank the Contributing Factors in order of importance for determining students' needs, they were ranked as follows: Program Demands, Challenging Condition, Student Cooperation, Age of Student, Attendance, Change in Program, Other, Interpreter/ Captionist.

Ninety-two percent (92%) of persons who had used the Matrix stated that they will continue to use it for some or all of their students. Respondents offered suggestions for making the Matrix a better tool; these were incorporated in the June revisions.