

The Educational Adjustment Program Profile

The Educational Adjustment Program Profile: A Queensland initiative in the
identification and monitoring of students with a disability

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Abstract

The effective identification and monitoring of students with a disability is a complex and important aspect of educational service delivery for students with a disability in Queensland. Building on previous initiatives in this domain Education Queensland has piloted the development of the Educational Adjustment Program (EAP) profile. Based on the data from the initial survey sample of more than 1500 school age students with a disability across Queensland, this paper highlights: the design of the Education Adjustment Program Adjustment Profile (EAP); some of its psychometric properties; gender and Indigenous student dimensions within the data; and how the EAP instrument compares with the 1 to 6 ascertainment rating scale.

In Australia an inclusive model of education has resulted in more diversity in general classrooms but how to identify students with disabilities within the general school community can, at times, be a complex, challenging, but essential process given the resource implications (Ashman & Elkins, 2005; DEST, 2002; Hay, Elias, & Booker, 2005; Hay & Winn, in press). It is not uncommon for educational authorities to review the process of identifying students with a disability and if need be modify that process to ensure that an effective method is maintained that facilitates the delivery of services to the individual student (Hallahan & Kauffman, 2003; Kavale, 2002; Smith, 2004). Thus, identifying who is eligible for special education related services is a significant role of an education authority that requires sound practices developed through an understanding of the aetiology of different disabilities and how each disability typically manifests itself within the individual student (DSM-IV 2000).

The aim of this paper is to highlight some of the issues associated with a recent initiative by Education Queensland in identifying and reviewing students with a disability in an educational context. The main issues reported in the paper pertain to: the design of the Education Adjustment Program Adjustment Profile (EAP); some of its psychometric properties; gender and Indigenous student dimensions within the data; and how the EAP instrument compares with the 1 to 6 ascertainment rating scale (see Ashman & Hay, 2005 and Ashman, Hay & Bayne, 2005 for the reports on the evaluations of the EAP).

Ascertainment

To date, within Education Queensland students with disabilities (SWDs) funding is based upon a resource distribution model reliant on a consultative/diagnostic process known as Ascertainment. The process is based on educational needs arising from a disability or impairment and the intent is to supplement local services and facilitate provisions for such students. Support to SWDs is ultimately provided by, or accessible through, specialist personnel.

The ascertainment process was introduced by Education Queensland in the 1980s, reviewed in 1997, and revised in 2002. Ascertainment was intended to:

- identify SWDs and the resulting implications for educational outcomes;
- confirm a diagnosis of an impairment or disability in one category (or more) recognised and defined by Education Queensland for Ascertainment;
- consider and report the student's current curriculum, teaching, learning, and health and safety support requirements; and
- identify required program variations and the level of specialist educational support required by SWDs to maximise their educational outcomes.

The ascertainment process started when a student is considered to have special educational needs arising from a disability or impairment, and requires special educational support. Consultations occur among stakeholders, including the student's classroom teacher, specialist teacher, guidance officer, parents, the student, and other relevant professionals. A medical opinion or diagnosis is often required to confirm a specific condition in one (or more) of the following categories used at the time of writing:

- Autism spectrum disorder (ASD);
- Speech-language impairment (SLI);
- Intellectual impairment (II);
- Hearing impairment (HI);
- Physical impairment (PI);
- Vision impairment (VI);

- Severe emotional disorder (SED); and
- Combinations of these categories (hereafter referred to as multiple ascertainment).

To date, in Queensland's schools six levels of impairment have been recognised, Levels 1 through 6, the latter indicating the highest level of need.

Level 1 involves an initial consultation, an intervention with referral if needed, assessment, contact with parents, follow up, and referral to another agency, if appropriate. Level 1 is also used as a preliminary classification assigned to indicate that the student has been entered into the system and is awaiting the ascertainment process.

Level 2 involves management activities only, that is, monitoring of student performance, a review of performance, professional support of up to three hours per term but not necessarily personal contact with the individual student.

Level 3 involves the enactment of a support program, consultation and goal setting (review of teaching strategies, evaluation, resources, classroom management), the facilitation of appropriate in-class assistance (e.g., peer tutoring), and professional support of up to three hours per month.

Level 4 involves the formation of a support program, shared implementation, cooperative planning, direct assistance in program implementation, and professional support of up to three hours per fortnight;

Level 5 also involves the formation of a support program, shared implementation and modification, major input into program design and operation, a modified curriculum, and up to three hours of support per week;

Level 6 involves the development of an alternative program, the preparation of individual education plan (IEP), an alternative curriculum, and support in an integrated or segregated setting if this is considered appropriate.

Results of the ascertainment process have been recorded on a school-by-school basis into the Students with Disabilities Central On-Line Reporting database (SCOLR), the live system implemented throughout Queensland schools in 2001. Notional resource dollars are allocated to a school district based upon the ascertainment levels of students in any district.

There has been a range of criticisms of the ascertainment process. These concerns have drawn attention to complications with the process itself and to inequities in the distribution of funds to school districts, school, and students.

Education Adjustment Program Adjustment Profile

In 2004, Education Queensland developed an instrument known as the Education Adjustment Program Adjustment Profile (EAP profile) that was designed to assess student eligibility for *adjustment support* funded under the Education Adjustment Program following a finding that the student qualifies under an Education Queensland recognised funding category. It is intended that the profile will be used alongside the existing ascertainment process and will provide additional information beyond the student's diagnosis and level of need. The short- to medium-term objective is to determine the support needs of eligible students within an education jurisdiction via the EAP profile and the necessary teaching adjustments to enable students to gain access to the curriculum and participate in appropriate education programs (McFarland, Wiedman, Ashman, Hay, & Raciti, 2005).

The EAP profile was designed to measure:

- frequency of adjustments made across six focus areas relating to the delivery of an educational program to a specific student, namely
 - Curriculum;
 - Communication;
 - Social Participation/Emotional Well-being;
 - Health and Personal Care;
 - Safety; and
 - Learning Environment/Access;
- extent of adjustments made across all areas; and
- pervasiveness of adjustments made across all areas.

The trial instrument had 74 questions that sought an evaluation from persons who were familiar with the educational performance and needs of the students in terms of the education adjustments being made (or needed).

The number of items in each focus area varied. In addition to items dealing with specific adjustment needs, two "Overall Rating" items were included at the end of each section that sought a global estimate (on a 10-point scale) of the (a) frequency, and (b) extent of teaching adjustments required.

The EAP profile was developed and administered to a representative sample of SWDs across Queensland in Education Queensland schools and also in the non-state sector. Teacher feedback and comments were sought through consultation prior to the preparation of the trial instrument.

The EAP profile

The initial administration of the EAP profile was conducted in 679 schools across Queensland in Term 4 2004. A stratified sampling procedure was adopted to collect data on students whose details were maintained in the Students with Disabilities Central On-Line Reporting (SCOLR) database according to their proportional representation across jurisdictions, geographic location, age, gender, disability categories, and ascertainment level.

During the data collection process, three minor adjustments to the stratified sampling procedure were made. First, if a target student was not available for inclusion in the trial, the nominated school coordinator selected another. Substitutions were commonly made of students with a higher level of need than the original target. Second, it was decided to over-represent students with hearing impairments with ascertainment levels below Level 4. Students with hearing impairment are most typically at these levels and the intent of the over-representation was to ensure that the diversity of student characteristics was available for scrutiny. Third, an effort was made to increase the proportion of Indigenous students to ensure that there was sufficient data in the trial to make comment on Indigenous students' needs.

Table 1 shows the breakdown of students who have data entered into the Students with Disabilities Central On-Line Reporting (SCOLR) by ascertainment category and level.

Table 1
Ascertainment Categories and Levels Associated with the Students with Disabilities in the Sample (N = 1,565)

Ascertainment level	ASD	HI	IAS	II	PI	SLI	VI	Total
2	7	507		6	57	9	39	625
3	43	507			228	7	72	857
4	181	213		258	412	106	40	1,210
5	1,948	180	57	3,406	399	1,171	93	7,194
6	2,207	241	695	3,274	390	296	166	7,269
Total	4,386	1,648	752	6,944	1,426	1,589	410	17,155

The trial sample was 1,565 students. We undertook a comparison of the sample with what is ostensibly the population. It was necessary to adjust the trial sample data slightly to enable comparison as the sample contained 2 students at Level 1, and 5 students with an ascertainment of Severe Emotional Disorder (SED), a category not included in the Education Queensland documentation.

To compare the proportion of student in each ascertainment category in the total population and sample, *z*-tests were undertaken. These analyses revealed no statistically significant differences ($p > .05$) as follows, ASD: $Z = .66$; HI: $Z = .21$; IAS: $Z = .104$; II: $Z = .05$; PI: $Z = 1.16$; SLI: $Z = .152$; VI: $Z = 1.40$ ($Z_{crit} = 1.96$). This demonstrates comparability of category distribution across the two data sets.

Total and subscale scores

An EAP Total Score for each student was calculated. This was based on item responses summed across the instrument but excluded the 12 "Overall Rating" items that appear at the end of the focus areas. These additional 12 items asked respondents to consider the overall frequency and extent of adjustments made and, as such, could be taken as alternative ways of describing earlier ratings and, therefore, were not fully independent of the those items.

The EAP Total Score represents the *magnitude of adjustments* needed across the six focus areas. EAP Total scores ranged from 2 (indicating the most minimal adjustments) to 343. The distribution is shown in Figure 1 below. The mean score was 168.4 ($SD = 64.07$) out of a possible 345.

The curve over the distribution shows the relationship between the scores and a predicted normal distribution.

A second distribution was generated which included the 12 Overall Ratings. EAP Total Scores ranged from 12 to 463 (Figure 2). The mean score of this distribution was 236.7 ($SD = 89.56$) out of a possible 465.

Pearson's Product-Moment correlation coefficient was calculated to show the relationship between the two sets of total scores. This was $r = .99$ ($p < .001$, 1-tailed), a near perfect correlation. It was decided that only the EAP Total Scores (i.e., excluding Overall Ratings) would be used in further analyses.

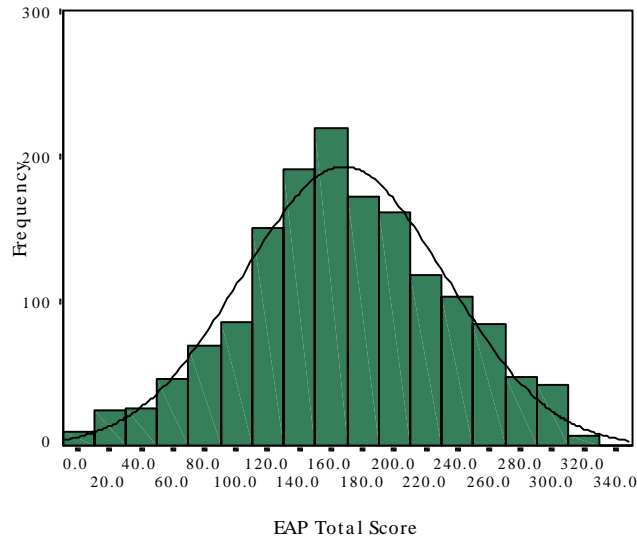


Figure 1: Distribution of Students' EAP Total Scores Excluding "Overall Ratings"

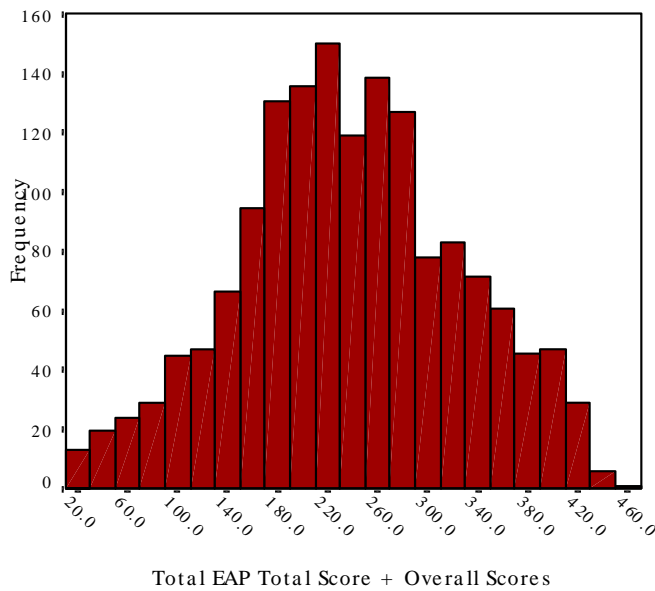


Figure 2: Distribution of Students' EAP Total Scores Including "Overall Ratings"

Gender differences

To investigate gender differences in the data, multivariate analysis of variance was conducted using EAP Total Score and scores from the six focus areas. The multivariate statistic was significant (Wilk's Lambda = 10.30, $p < .001$) allowing examination of the univariate statistics. Table 2 shows three statistically significant differences between the gender groups with the boys needing more Curriculum and Social Participation/Emotional Well-being adjustments than the girls, and the girls more Health and Personal Care adjustments than boys.

Table 2
Distribution of Students by Gender Across Focus Areas

Focus area	Gender group	
	Male <i>M</i>	Female <i>M</i>
Curriculum	49.5	47.6*
Communication	47.0	45.4
Social Participation/Emotional Well-being	29.9	26.2***
Health and Personal Care	7.3	8.6**
Safety	15.2	15.1
Learning Environment/Access	21.0	21.4
EAP Total Score	169.9	164.2

* $p < .05$

** $p < .01$

*** $p < .001$

Indigenous students

Interest has been expressed in identifying any differences between Indigenous and non-Indigenous students. It will be recalled that an effort was made to maximise the number of Indigenous students in the trial sample. While 125 were included, there is a disproportionate representation of Aborigines to Torres Strait Islanders. This makes a comparison tentative.

Data from the Student Information section of the EAP questionnaire were recoded into a categorical variable and multivariate analysis of variance was undertaken. The multivariate statistic was significant (Wilk's Lambda = .978, $p < .01$) allowing examination of the univariate statistics. Table 3 shows the results.

Significant differences ($p < .05$) were found in the *Curriculum* area between non-Indigenous (Group 1) and Torres Strait Islanders (Group 3) (shown as * in the Table 3). Differences were also found between Groups 1 and 3 (*) in *Social Participation/Emotional Well-being* and in the *Safety* area between Groups 1 and 3 (*) and 2 and 3 (†), and in the *Learning Environment/Access* area between Groups 1 and 3 (*).

Table 3
Comparison EAP Total Scores of Students from Non-Indigenous (n = 1,378), Aboriginal (n = 16), and Torres Strait Island (n = 109) Backgrounds by Focus Area

Variable	Non-Indigenous <i>M (SD)</i>	Aboriginal <i>M (SD)</i>	Torres Strait Island <i>M (SD)</i>
Curriculum	49.1 (.45)*	53.7 (3.99)	44.3 (1.51)*
Communication	46.5 (.50)	53.0 (4.61)	44.3 (1.77)
Social Part/Emotional Well-being	29.0 (.40)*	31.3 (3.71)	22.5 (1.42)*
Health and Personal Care	7.9 (.24)	10.1 (2.18)	5.9 (.83)
Safety	15.4 (.32)*	20.1 (2.99)†	11.6 (1.15)*†
Learning Environ/Access	21.4 (.28)*	23.3 (2.60)	17.7 (.99)*
EAP Total Score	169.4 (1.73)	191.4 (16.09)	146.3 (6.16)

There were no significant differences between groups in the Communication and Health and Personal Care areas.

Overall, the data show that Aboriginal students receive a higher level of adjustment than the other two groups. It should be acknowledged, however, that the sample of Indigenous students is not representative of either Indigenous group, making these results tentative at best.

Ascertainment levels and the EAP instrument

The relationship between the ascertainment category and levels and the EAP profile is an important outcome of the investigation of the EAP. Ascertainment is essentially a diagnostic tool. School staff and other stakeholders establish the educational needs of the student based (in most cases) on a medical diagnosis. The EAP profile goes a significant step further by focusing on the actual adjustments (or needed adjustments) in planning, program development, implementation of teaching strategies and programs, and the monitoring of student progress.

Ascertainment levels and EAP Total Scores are related notions in that they address student characteristics and needs and are, not surprisingly, moderately correlated ($r = .61$). However, there is considerable anecdotal evidence from school personnel to question the current funding allocations based upon levels (4 to 6) and the correlation coefficient reflects the fact that approximately 36% only of the variation in scores is attributable to the positive relationship between the two variables. In other word, there are other causes that account for the similarities and differences between students.

The relationship between ascertainment level and the EAP Total Score shown in Figure 3 exemplifies the concern often expressed by school personnel. The spread of EAP scores across ascertainment levels makes it quite apparent that the needs of one student at Level 6 are not necessarily the same as another.

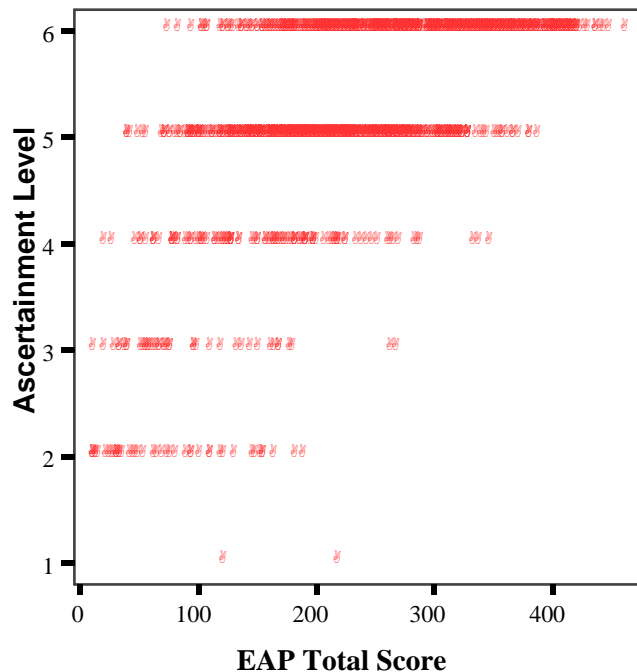


Figure 3: Distribution of Students at the Six Ascertainment Levels According to EAP Profile Total Score

Figure 3 alone suggests that ascertainment level is an inequitable and inappropriate basis upon which to allocate (notional) funding support for SWDs.

In conclusion

In general terms, the EAP profile is a well-constructed and secure instrument in terms of its capability to provide information on students with a disability upon which variations can be made to the students' teaching-learning environments and the provision of support to enable adjustments to be achieved for students with a disability. As an instrument to identify and review students with a disability who may be eligible for special education related services, the EAP is an advancement on the previous ascertainment process based on a one to six rating scale.

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