

*Office of the Independent Monitor  
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Telephone Survey of Implementation of Welligent Web-based IEP System

**Background**

The Welligent web-based Individualized Education Plan (IEP) management system is a centralized program that manages and tracks students' IEPs. Each student with a disability must have an IEP under federal law. The IEP consolidates student information, lists the special education services and includes annual educational or therapeutic goals and objectives. Formerly, IEPs existed only as a paper documents. The Welligent IEP system allows IEPs to be completed on the Internet and stores the information in the District's computer network so that they can be accessed by District personnel or by schools when students transfer between sites. Information from these records can then be extracted and consolidated into reports to provide evidence of progress toward the outcomes of the Modified Consent Decree (MCD). The Welligent IEP system has been used for approximately two years and continues to be implemented throughout the Los Angeles Unified School District (LAUSD). There are currently over 70,000 unduplicated IEPs in the Welligent system.

Yearly progress toward achieving the goals of the MCD and the benchmarks of the yearly Annual Plans depends on information derived from current annual, initial, addendum and other IEPs entered into the Welligent system. It is essential that school staff and other personnel are using the Welligent system for the purposes of drafting initial, addendum and annual IEPs throughout the course of the school year. Because the provision of accurate data to our office is dependent on the successful implementation of the Welligent system at the school level, the Office of the Independent Monitor (OIM) has an obligation to assess the program's school level implementation. To this end, we conducted a confidential telephone survey of administrators or staff responsible for Welligent management at 460 of the 520 schools identified by the District as being "fully trained" to use Welligent.

The survey was conducted over a two-week period from mid to late February 2004. Previous to initiation of the study, we piloted the survey with 10 schools. The primary goal of the survey was to gauge usage of the system by special education teachers in each school. It did not attempt to assess usage by related service or other staff. Other goals included gauging usage by administrative personnel to manage IEP caseloads and to identify problems that prevented or impeded full implementation or delayed or disrupted successful usage by special education teachers.

In the first year we found that 275 (60%) were identified as "full implementation". Full implementation is defined as 100% of special education teachers using Welligent to enter IEP data. 98 (21%) schools were identified as "partial implementation". Partial implementation is defined as less than 100% of special education teachers using the

system. 87 (19%) schools were identified as “no implementation”. No implementation is defined as 0% of special education teachers using the system. The total special education enrollment in these schools is 12,095 students

Nearly every school contact provided additional feedback to our data collectors on how to improve the Welligent system. Many of these school contacts noted that the system was not user-friendly, particularly within the context of the IEP meeting. Respondents from middle and high schools with large special education enrollments tended to be more critical of the system and indicated more implementation problems than elementary schools. While school contacts were typically complimentary of Welligent’s technical support, they were highly critical of the timeline for implementation of the system, the consistency and adequacy of the trainings (particularly after changes to the software), and the response of the Division to persistent issues such as lack of hardware, connectivity, difficulty of home usage, and the user-friendliness of the software.

### **2004-05 School Year**

A second confidential Welligent survey of school administrators or staff responsible for Welligent management was completed during a three-week period in February 2005. The survey repeated most of the questions in the first survey around implementation rates and technical problems. Questions were added on Designated Instructional Services (DIS) provider usage, classroom access by teachers, use of the management module (to schedule IEPs within the timelines required by state and federal special education laws) by school personnel, attempts to request assistance when encountering technical problems and sources of responses, types of assistance and methods of notification of changes in the system.

OIM staff conducted a pilot of the survey in 15 schools in early February. Based on the results of the pilot, the survey was modified to collect commentary from respondents on the assistance that they requested when they encountered problems using the Welligent system. The final survey from included 16 questions and was performed by telephone to the Assistant Principal Elementary Instructional Services (APEIS) or other staff responsible for Welligent management if an elementary school or to the Assistant Principal in charge of special education, special education coordinator, special education department chair or other staff responsible for Welligent management if a middle or high school.

### **Methodology**

Because the District stated that all schools were required to use the Welligent system during the 2004-05 school year, the OIM sought to survey all 722 schools in the District with enrolled special education students. This included all charter schools and continuation high schools. It did not include non-public schools.

Temporary personnel were hired to conduct the survey. These data collectors were trained to follow a survey protocol and enter survey data into a database (Attachment A)

by OIM staff. Throughout the three weeks, they were closely supervised to ensure consistency in their use of the protocol both individually and as a group.

Survey staff was instructed to begin by collecting contact information from the school for all administrators with responsibility for supervision of the special education program. They were instructed to interview identified administrative staff unless these administrators identified another individual responsible for management of the Welligent IEP system such as the Chanda Smith Clerk. In those cases, this individual completed the survey. Staff was also instructed to type the responses of interviewees for the questions on the “types of problems you or your staff have encountered when using Welligent” and “additional comments on the response to the assistance requested.”

Schools were contacted up to 10 times in an effort to interview the appropriate personnel. When the study concluded, respondents at 667 (92%) of the schools had completed the survey.

## **Findings**

Complete findings are presented in the attached report completed by Dr. Peter Goldschmidt and Marjorie Chinen of UCLA/CRESST (Attachment B). The report is divided in four sections. In section I, schools with complete and incomplete surveys are described. The analysis of the questionnaire reveals that 92% of the respondents, 667 out of 722 schools completed the survey. This gives us fairly strong confidence that complete survey results are representative of all respondents. In this section we also found that while some of the means reported for the incomplete survey appear to differ from those with complete surveys, these differences are likely due to chance (when considering the standard deviations). The two exceptions are that schools with incomplete surveys are more likely to be secondary or ‘small’ schools<sup>1</sup> than schools with complete surveys.

In section II, the first indicator of implementation is presented. This indicator captures the percentage of special education teachers within each school that use the Welligent system. The presented statistics reveal that 95% (552 of 582 schools) of the respondents that provided data on number of special education teachers in their school and number using the system reported full implementation of the system (100% of teachers using the Welligent system). It should be noted that this group of 582 schools is a subset of the 667 schools that completed the survey.

Overall, the statistics reveal that 88% of the schools with completed surveys reported using the Welligent system. From this set of schools, 68% informed that all their special education teachers have access to Welligent in their classrooms. Furthermore, 89.5% of the users of the system answered that at least one staff member of the school uses the management module of Welligent to manage IEP caseloads. Moreover, 88% of the schools that use the Welligent system reported that all the DIS personnel assigned to their schools also use the system.

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<sup>1</sup> “Small” schools were defined as 300 or less students; “Medium” were 300-800 students; Large were 800 and above.

While implementation is high, 93.5% of the respondents that use the Welligent system indicate that they experienced technical problems. Regarding the type of difficulties experienced, 40% and 20% of the schools reported the options 'Problems using the program' and 'Access to Welligent' (defined as ability to access the Welligent system over the internet) as the two most frequent problems. Approximately 43% of the schools that encountered problems stated that these difficulties impeded their ability to complete the IEP within the timelines required by law.

Specific responses collected from respondents in the category of "problems using the program" and "other" were coded and categorized. The top three types of "problems using the program" reported by respondents were "slow/time consuming" (31%), "cannot amend [the IEP]" (21%), and "cannot close the IEP" (15%). (Attachment C)

When the respondents were asked if they requested assistance to address these problems, 87% answered affirmative. The majority reported that they sought assistance from 'IEP support' personnel (89%). Finally, they also indicated that in general, learning about Welligent was facilitated by the alert system, rather than any other means (trial and error, other personnel, memos etc).

In section III, the patterns of responses of the questions presented in section II are studied in more detail. First, differences across the levels of implementation in terms of certain variables are investigated but due to the extreme differences in sample sizes it is difficult to generalize the results from these analyses.

Also because of the high levels of implementation, neither classroom access to Welligent nor the use of the management module, appear to be the reasons for not fully implementing the Welligent system.

When exploring the characteristics of the schools that experienced problems, we found that the technical problems are not the likely cause of not fully implementing the system given that 93% of the schools with full implementation also experienced problems with the system. However, we found that schools with large enrollment size are more likely to encounter technical problems than medium or small schools. Other interesting findings are that secondary schools and schools with large enrollment, which experienced problems with the system, are more likely to fail in completing the IEPs within the time period demand by law, than primary or small schools.

Finally in section IV, a more complex indicator of implementation of the Welligent is presented. Based on this indicator of implementation '2', still a very positive but less optimistic scenario is described. According to this indicator, 82.8% of the schools present full implementation of the system, while 7.6% present partial and 9.6% low implementation. Also with this indicator we can distinguish better differences across types of schools. In general we observed within the group of schools with low implementation, less primary schools (55%) but more secondary schools (26%) than within the group of schools with high implementation where these percentage are 77% and 8% for primary and secondary respectively.

Once again, classroom access does not seem to limit high levels of implementation of the program (using indicator 2) and regardless of the level of implementation the majority of schools encountered problems when using the system.

Overall, based on results of this survey, it appears that the level of implementation of Welligent has increased substantially between 2003-04 and 2004-05. By all indicators there is a high level of usage of the system throughout schools in LAUSD. However, use of the system continues to be troubled by problems that may be having a negative impact on the ability of school staff to complete IEPs within the timelines required by law. While the provision of assistance by the District to address these problems appears to be widespread and many respondents report positively on its impact, the usage problems experienced by school staff have remained largely consistent between Years I and II. If implementation and problems are impeding the timely completion of IEPs, they will prevent the District from achieving what it has defined as its measure of “full implementation” of Welligent – the entry of all student IEPs into the system within the timelines required by law. To this end, the District should address and correct these problems prior to the beginning of the 2005-06 traditional school year.

## Attachment A: Welligent Survey Year II and Database Screenshot

### Interview

Hello, my name is \_\_ and I am calling from the Modified Consent Decree Office (*You can also use Chanda Smith Office or the Office of the Independent Monitor*).

*If an Elementary School:* What is the name of your APEIS? (*Assistant Principal Elementary Instructional Services*) [RECORD THE NAME IN CONTACT INFORMATION]

Can I please speak to him or her? [IF NO APEIS, ASK FOR AP IN CHARGE OF SPECIAL EDUCATION AND THEN, THE PRINCIPAL]

*If Middle or High School:* What is the name of your Assistant Principal in charge of Special Education? [RECORD THE NAME IN CONTACT INFORMATION] What is the name of your special education coordinator or special education department chair? [RECORD THE NAME/S IN THE CONTACT INFORMATION]

Can I speak to [NAME OF ASSISTANT PRINCIPAL OR IF UNAVAILABLE THE COORDINATOR AND THEN THE DEPARTMENT CHAIR]?

Hello, my name is \_\_ and I am calling from the Office of the Independent Monitor [or Chanda Smith Office or Modified Consent Decree Office]. We are conducting a brief confidential survey on the implementation of the Welligent system in LAUSD. We would like to get some feedback from you on the implementation of Welligent in your school. This information will be combined with survey results from schools throughout the District and be provided to the Independent Monitor, Division of Special Education and Information Technology Division for review. Your name and your school will not be identified. Do you have five minutes now to talk with us about this?

IF YES: [CHECK THE CALLED BOX, ENTER NAME INTO NAME OF PERSON AND BEGIN SURVEY]

IF NO: When would be a good time to call back? [CHECK THE CALLED BOX AND RECORD INFORMATION IN CONTACT INFORMATION AREA]

1	Is your school using the Welligent IEP system?		If yes, check “Using Welligent” and go to question #3 If no, do not check “Using Welligent” and go to question #2
2	Why has your school not started to use the Welligent IEP system?		Refer to drop-down menus “Why Not”: Choose the comments that most closely correspond to the reasons cited by interviewee. Go to Question # 3, 11-14 and 16
3	Approximately how many special education teachers are in your school?		Enter information in the “# of Spec Ed Teachers”
4	Approximately how many of these special education teachers are using Welligent?		Enter information in the “# of Teachers Using Welligent”
5	Do all special education teachers in your school have access to Welligent in their classrooms?		If yes, check “Classroom Access” If no, do not check “Classroom Access”
6	Are you or any other staff in your school using the management module of Welligent to manage IEP caseloads?		If yes, check “Manage IEP caseloads” box and go to question 7. If no, do not check “Manage IEP caseloads and go to question 7
7	Are all DIS personnel assigned to your school using Welligent?		If yes, check “DIS using”. If no, do not check “DIS using.”
8	Have you or any other staff in your school encountered any problems when using the Welligent system?		If yes, check “Problems” box. If no, do not check “Problems” box and go to question 16

9	Please describe the types of problems that you or your staff have encountered when using Welligent?		Refer to “Type of Problem” drop-down menus. Choose the comments that most closely correspond to the problems cited by the interviewee. If there are additional comments, place in the “General Comments” area.
10	Have these problems impeded the ability of your school to complete IEPs within the timelines required by law?		If yes, check “Problems impeded IEP completion” If no, do not check “Problems impeded IEP completion”
11	Have you requested assistance to address these problems?		If yes, check box and go to next question. If no, do not check and go to question # 16
12	From whom did you request assistance?		Refer to the list and check option/s that most closely corresponds to response
13	Did the assistance resolve your problem?		For each response, refer to drop-down menu and select yes or no.
14	Do you have any additional comments on the response to the assistance you requested?		Enter into “Comments” area
15	How do you learn about changes in the Welligent system such as new edits?		In “Notification of Systems Changes” check all the boxes that apply
16	Do you have any additional comments or feedback re: Welligent that you would like to give us?		Enter into the “General Comments” area

**IF SURVEY IS COMPLETE, CHECK COMPLETED SURVEY BOX**

Thank you very much for your participation in this survey. If you have additional questions, you may contact the Office of the Independent Monitor at (213) 241-6036. Goodbye. [Check “Completed Survey”]

# Database Screenshot

The screenshot shows a Microsoft Access database form titled "Survey". The form is displayed in a window with a standard Windows interface, including a menu bar (File, Edit, View, Insert, Format, Records, Tools, Window, Help) and a toolbar. The form itself is divided into several sections, each with a title and a set of fields:

- Header Section:** Contains fields for "Loc Code", "School", "Local District", "Phone", "Configuration", and "Calendar".
- Enrollment Section:** Contains fields for "Enrollment", "Spec Ed Enrollments", "Called", and "Contact Information".
- Name of Person Section:** Contains fields for "Name of Person", "Position", "Using Welligent", "Why Not", "Classroom Access", "Manage IEP Caseloads", and "DJS Using".
- Problems Section:** Contains fields for "Problems", "Type of problem", and "Problems impeded IEP completion".
- Requested Assistance Section:** Contains fields for "Requested Assistance", "IEP Support", "Local District", "Div Spec Ed", "Other", and "Who?".
- Comments Section:** A large text area for "Comments".
- Notification of System Changes Section:** Contains checkboxes for "Welligent Alert System", "Trainings", "Memos/Directives", "Other Personnel", "Trial and Error", and "Other".
- General Comments Section:** A large text area for "General Comments".

At the bottom of the window, the status bar shows "Record: 1 of 664" and "Form View". The taskbar at the bottom of the screen shows the Start button, several open applications (including Internet Explorer and Outlook), and the system clock showing "9:51 AM".

# **OIM Welligent Questionnaire**

## **Report**

Marjorie Chinen

Pete Goldschmidt

## **Executive Summary**

This report presents a series of analyses describing the main features of the confidential survey denominated 'OIM/Welligent Questionnaire' that collects information of the implementation of the Welligent IEP system in LAUSD schools. Personnel of the Office of the Independent Monitor (or Chanda Smith Office or Modified Consent Decree Office) conducted the interview. The survey included 16 questions and was performed by telephone to the Assistant Principal Elementary Instructional Services (APEIS) if an elementary school or to the Assistant Principal in charge of special education if a middle or high school.

The report is divided in four sections. In section I, schools with complete and incomplete surveys are described. The analysis of the questionnaire containing 722 responses reveals that the vast majority (92%) of respondents completed the survey. This gives us fairly strong confidence that complete survey results are representative of all respondents. In this section we also found that while some of the means reported for the incomplete survey appear to differ from those with complete surveys, these differences are likely due to chance (when considering the standard deviations). The two exceptions are that schools with incomplete surveys are more likely to be secondary or 'small' schools (less than 300 students enrolled) than schools with complete surveys.

In section II, the first indicator of implementation is presented. This indicator captures the percentage of special education teachers within each school that use the Welligent system. The presented statistics reveal that the majority of respondents report full implementation of the system (95%). Again this limits what we can infer about non-full implementers, as the sample sizes are small.

The additional tables presented in section II describe the responses to several of the questions of the survey and here simply highlight several points.

Overall, the statistics reveal that 88% of the schools with complete-survey reported using the Welligent system. From this set of schools, 68% informed that all their special education teachers have access to Welligent in their classrooms. Furthermore, 89.5% of the users of the system answered that at least one staff member of the school uses the management module of Welligent to manage IEP caseloads. Moreover, 88% of the schools that uses the Welligent system reported that all the DIS personnel assigned to their schools also use the system.

While implementation is high, a majority (93.5%) of the respondents that use the Welligent system indicate that they experienced technical problems. About the type of difficulties experienced, 40% and 20% of the schools reported the options ‘problems using the program’ and ‘access to Welligent’ as the two most frequent problems. Approximately 43% of the schools that encountered problems informed that these difficulties impeded their ability to complete the IEP within the timelines required by law.

When the respondents were asked if they requested assistance to address these problems, 87% answered affirmative. The majority reported that they sought assistance from ‘IEP support’ personnel (89%). Finally, they also indicate that in general, learning about Welligent was facilitated by the alert system, rather than any other means (trial and error, other personnel, memos etc).

In section III, the patterns of responses of the questions presented in section II are studied in more detail. First, differences across the levels of implementation in terms of certain variables are investigated but due to the extreme differences in sample sizes it is difficult to generalized the results from these analyses.

Also because of the high levels of implementation, neither classroom access to Welligent nor the use of the management module, appear to be the reasons for not fully implementing the Welligent system.

When exploring the characteristics of the schools that experienced problems, we found that the technical problems are not the likely cause of not fully implementing the system given that 93% of the schools with full implementation also experiences problems with the system. However, we found that schools with large enrollment size are more likely to encounter technical problems than medium or small schools. Other interesting findings are that secondary schools and schools with large enrollment, which experienced problems with the system, are more likely to fail in completing the IEPs within the time period demand by law, than primary or small schools.

Finally in section IV, a more complex indicator of implementation of the Welligent is presented. Based on this indicator of implementation '2', still a very positive but less optimistic scenario is described. According to this indicator, 82.8% of the schools present full implementation of the system, while 7.6% present partial and 9.6% low implementation. Also with this indicator we can distinguish better differences across types of schools. In general we observed within the group of schools with low implementation, less primary schools (55%) but more secondary schools (26%) than within the group of schools with high implementation where these percentage are 77% and 8% for primary and secondary respectively.

Once again, classroom access does not seem to limit high levels of implementation of the program (using indicator 2) and regardless of the level of implementation the majority of schools encountered problems when using the system.

Lastly, it should be noted that not all 722 responses are used as the denominator for all of the tables, as some questions pertain only to a subgroup or respondents. The deviations are noted for each table.

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## OIM Welligent Questionnaire Analysis

### Section I: Description of complete-survey and incomplete-survey schools

As mentioned previously, the Welligent questionnaire was applied to 722 schools. While 667 (92%) schools completed the questionnaire, 55 did not finish (8%).<sup>2</sup> To study if there are systematic differences between these two groups of schools, Table 1 presents some descriptive statistics for schools with incomplete surveys and with complete surveys (referred from now on as “incomplete-survey” and “complete-survey” schools). Also, Tables 2 and 3 present some frequencies of school type and enrollment size for these two groups of schools.

**Table 1**

Descriptive statistics of schools with incomplete surveys vs. schools with complete surveys

Groups of schools	Variable	N	Mean	SD	Min	Max
Incomplete-survey N= 55	Lunch	55	458.3	609.5	0	2644
	% Receiving Lunch	52	0.45	0.37	0	0.99
	Enrollment	55	722.9	921.7	24	4033
	Spec Ed Enrollment	41	85.1	102.1	3	439
Complete-survey N=667	Lunch	667	786.6	779.9	0	4379
	% Receiving Lunch	637	0.63	0.30	0	0.996
	Enrollment	667	992.8	903.2	12	5116
	Spec Ed Enrollment	663	111.4	107.4	0	590

<sup>2</sup> Notice that schools with incomplete survey still have information for question 1. Also for questions 5 and 6 these schools have the value of zero instead of missing values.

Table 1 presents the descriptive statistics for the variables number of students receiving the lunch program, the percentage receiving lunch<sup>3</sup>, enrollment and special education enrollment by group (incomplete vs. completed surveys). Considering the differences in sample size between the two groups, we can observe that the average number of students receiving the lunch program and average enrollment are much higher for the complete-survey group than for the incomplete-survey group. The special education enrollment is also higher in the complete-survey group but it does not seem to be significantly higher considering the standard deviations.

**Table 2**

Frequency of type of school for incomplete-survey and complete-survey schools

Type of School	Incomplete-survey		Complete-survey	
	N	%	N	%
Primary	23	41.8	443	66.4
Middle	7	12.7	82	12.3
Secondary	17	30.9	96	14.4
Other <sup>4</sup>	8	14.6	46	6.9
Total	55	100	667	100

The majority of schools are primary in both groups; however notice that the proportion of primary schools is higher for the complete-survey schools (66% and 42% for the complete and incomplete-survey groups respectively). In contrast, the proportion of secondary schools is higher for the incomplete-survey group (31%) than for the complete-survey one (14%).

<sup>3</sup> Note: 33 cases lunch was higher than the 'total enrollment'. The latter variable was obtained by adding both enrollment and special education enrollment.

<sup>4</sup> The category "other" refers to those schools for which classification was difficult due to the overlapping of grades beyond the traditional classification. Those schools with configurations similar to '4-12', '6-11', '6-12', '7-12', 'k-8', 'k-k', 'k-12', 'pk-8', 'pk-12' were classified under this category.

**Table 3**

Number and percentage of enrollment for incomplete-survey and complete-survey schools

	Incomplete-survey		Complete-survey	
	Schools		Schools	
Enrollment <sup>5</sup>	N	%	N	%
Small	27	49.09	96	14.39
Medium	13	23.64	244	36.58
Large	15	27.27	327	49.03
Total	55	100	667	100

Table 3 presents the frequencies of enrollment size. For illustrative purposes enrollment is presented in categories, where ‘small’ represents schools with less than 300 students, ‘medium’ are schools with more than 300 but less than 800 students, and finally ‘large’ are schools with more than 800 students. It is shown in this table that while incomplete-survey schools are mainly small schools (49%), complete-survey schools are split between medium (37%) and large (49%).

## **Section II: Frequencies of the questions of the OIM Welligent Questionnaire**

### Implementation of the Welligent IEP system

Implementation in this section is defined as the percentage of special education teachers that use the Welligent system over the total number of special education teachers within each school. This percentage provides a first measure of implementation of the program. When the value of this ratio was zero, then implementation was considered to be zero as well. If the ratio was higher than zero but lower than 1, then partial

<sup>5</sup> Note: Total enrollment = enrollment + special education enrollment.

implementation was assumed, and finally when the ratio was equal to 1, full implementation was assumed in that particular school. Table 4 presents the frequencies for this indicator. This indicator of implementation will be also referred as ‘indicator 1’.

**Table 4**

Implementation based on the percentage of special education teachers using the Welligent IEP system

Implementation	N	%
Zero use	7	1.2
Less than 100% use	23	4.0
100% use	552	94.9
Total	582	100.0

Based on this indicator of implementation, we can conclude that the system is broadly implemented across the LAUSD schools. Table 4 reveals that 95% of the schools reported that all their special education teachers are using the Welligent system. In contrast only 4% and 1% reported having partial implementation or no teachers using the system respectively.

A careful reader might have noticed that the sample size for this indicator is smaller than the total sample of 667 schools with complete surveys. The decrease of the number of schools occurs because of the lack of complete data for the two variables needed to elaborate this indicator.<sup>6</sup>

In section III of this report, descriptive statistics are presented to explore if schools with different levels of implementation show some systematic differences in terms of certain school variables. Also, another indicator of implementation that combines information not only of the percentage of teachers using the system, but also

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<sup>6</sup> There is completed data for 591 schools. The sample is reduced more (to n=582) when the non-zero denominator constrained was imposed.

data on the use of the management module and the use of the system by the DIS personnel, is presented in section III.

Use of the Welligent IEP system

Table 5  
Number and percentage of schools using Welligent IEP system

Using Welligent IEP	Original Question 1	
	N	%
No	88	13.2
Yes	579	86.8
Total	667	100.0

Table 5 shows the answers for question 1: *Is your school using the Welligent IEP system?* To this question 13% of the schools responded not using the system, while 87% of the schools reported using the system. In other words, this statistic reveals that the Welligent system is being used in most of LAUSD schools.

When analyzing the subsequent questions 6 and 7 that provide information of the level of use of the system within each school, and then crossing these questions with question 1, we found that some schools reported themselves as not users of the system in question 1 but still provided information in at least one of the other three questions. For these cases, the ‘no’ response of question 1 was recoded to ‘yes’. The frequency of this recoded version of question 1 is presented in Table 6.

Table 6

Number and percentage of schools using Welligent IEP system

Using Welligent IEP	Recoded Question 1	
	N	%
No	79	11.8
Yes	588	88.2
Total	667	100

The responses of a total of 9 schools were replaced and became ‘yes’ answers in question 1 because these schools reported either using the management module (question 6), or that all their DIS personnel was using the system (question 7), or both. Because of the small number of recoded answers the percentages for this recoded question 1 look very similar to the original question. While in the original question 87% of the schools reported using the system, in the recoded version this percentage increased one point, to 88%.

From now on, questions 5, 6 and 7 will report the original frequencies (for all the complete-survey schools) and the adjusted ones by the recoded question 1 (only for schools using the system). This adjustment is necessary because the non-users of the Welligent system are counted in these questions as ‘no’ answers instead of missing values. In other words, without selecting the sample to users of the system only, the ‘no’ answers are over-estimated. Therefore, only the adjusted-frequencies are interpreted in the following sections.

#### Classroom access to the Welligent IEP system

Besides asking the interviewee if the system was being used or not used in the school, the questionnaire also inquired whether all special education teachers have access to the Welligent system in their classrooms or not (question 5). The following table 7 presents the results of this question.

Table 7

Number and percentage of schools with access to the Welligent system in all their classrooms

Classroom Access	Original Q5		Only schools using Welligent	
	N	%	N	%
No	266	39.9	187	31.8
Yes	401	60.1	401	68.2
Total	667	100.0	588	100

Table 7 reveals that in 68% of the schools (n=401) all special education teachers have access to the Welligent system in their classrooms, while 32% of the schools (n=187) either only a portion of the special education teachers have access to the program or, none of these schools provide access to the system at the classroom level at all.

Use of the management module of Welligent

Also explored in this questionnaire was whether or not the schools were using the management module to manage the IEP caseloads. The specific question 6 was as followed: *Are you or any other staff in your school using the management module of Welligent to manage IEP caseloads?* As shown in Table 8, 89.5% reported using the management module of Welligent to manage IEP caseloads, whereas 21% declared not using this module.

Table 8

Number and percentage of schools using the management module of the Welligent

Management Module	Original Q6		Only schools using	
	N	%	N	%
No	141	21.1	62	10.5
Yes	526	78.9	526	89.5
Total	667	100.0	588	100

### Designated Instruction Services personnel and use of the Welligent system

Table 9 shows the frequency of responses to question 7, which asked if all Designated Instruction Services (DIS) personnel in the school use the Welligent or not. To this question 88% of the schools answered ‘yes’, equivalent to reporting that all DIS personnel in these schools uses the system. In contrast 12% of the schools answered ‘no’ to this question indicating either that only some of the DIS personnel uses the system or that none of the DIS personnel uses the system in these schools.

Table 9

Number and percentage of schools that have all their DIS personnel using the Welligent system

	Original Q8		Only schools using Welligent	
	N	%	N	%
All DIS Personnel Using Welligent				
No	148	22.2	69	11.73
Yes	519	77.8	519	88.3
Total	667	100	588	100.0

### Technical problems encountered when using the Welligent system

The OIM Welligent questionnaire also explored if schools encountered technical problems when using the Welligent system (question 8). The frequencies of this question are presented for the original sample, and for the restricted sample of users of the system. Presenting both pieces of information not only pretends to demonstrate the importance of distinguishing ‘no’ answers from missing values, but also to explore any kind of pattern between the non-users of the system and the frequency of occurrence of technical problems.

A total of 553 schools reported experiencing technical problems. Restricting the sample size to user of the system, we can observe that 93.5% (n=550) of these schools reported encountering problems when using the Welligent system, while only 6.5% (n=38) responded not experiencing problems. Among the non-users of the system, only 3 schools reported experiencing technical problems when using the system. Giving the actual structure of the OIM questionnaire, it is not possible to disentangle if these 3 cases correspond to input errors or if these schools were probably users of the system but stopped using it due to these technical problems.

In any case the results presented in table 10 show a strong finding: that regardless of the high levels of implementation, the majority of schools are experiencing difficulties when using the Welligent system.

Table 10  
Number and percentage of users of Welligent by technical problems

		Technical Problems		
		No	Yes	Total
Using Welligent	N	76	3	79
	%	96.2	3.8	100
No	N	38	550	588
	%	6.5	93.5	100
Yes	N	114	553	667
	%	17.09	82.91	100

To investigate further the kind of problems that the schools run into, question 9 asked the interviewee to describe the types of problems that the staff of the school encountered when using the system. Because in this question the interviewee had the

chance two mention up to two problems, the number of total responses are 903.<sup>7</sup> The table 11 presents the top four problems or most common difficulties and the percentages represent the number of responses for each of these alternatives over the total number of 903 responses.

Table 11  
Top four problems encountered when using Welligent

	Top Four Problems	N	%
1	Problems using program	364	40.3
2	Access to Welligent	184	20.4
3	Other	120	13.3
4	Problems printing	103	11.4

Note: The results of this table were obtained by adding the responses of the two columns available for this question. The percentage divides the total number of responses for each category by the total number of responses for both columns.

In spite of the high levels of implementation levels of the system, the two most common problems are ‘problems using the program’ (40%) and ‘access to Welligent’ (20%). Even though these alternatives provide some information of the nature of the problems encountered when using the system, they are still very general and do not provide useful inputs to the program administrators. If the purpose of question 9 is to give information that can help improve the system, then it is necessary to have more informative responses. The alternative ‘other’ is even less helpful and does not provide any useful description of the difficulties that these schools run into.

As shown in Table 12, when the schools that experienced technical problems were asked to respond if these problems impeded the ability of the school to complete IEPs within timelines required by law (question 10), 43% of these schools answered ‘yes’ to this question while 57% responded ‘no’.

<sup>7</sup> There were 546 responses for the first column and 357 for the second one.

Table 12

Have these problems impeded the ability of your school to complete IEPs within timelines required by law?

	N	%
No	315	57.0
Yes	238	43.0
Total	553	100.0

Note: Sample restricted to schools that encountered technical problems.

It would be important to explore the characteristics of those schools that answered ‘yes’ to question 10. This information could be particularly useful to identify groups of schools that might need more help on implementing the Welligent system or that might require a more specialized intervention adjusted to the particular characteristics or context of these schools. This information is provided in section III of this report.

### Technical support

To explore how many of the schools that experienced technical problems also requested assistance to address these difficulties, question 11 in the survey asked: *Have you requested assistance to address these problems?* Table 13 illustrates that 87% of the schools that experienced technical problems also requested assistance, whereas 13% of these schools did not request help. Therefore, the majority of the schools looked for ways of resolving the technical difficulties that they experienced when using the Welligent system.

Table 13

Number and percentage of schools that request assistance to address technical problems

Request Assistance	N	%
No	73	13.2
Yes	480	86.8
Total	553	100

Note: Sample restricted to those that encountered technical problems.

To investigate the general characteristics of the providers of technical assistance, Table 14 presents the frequencies of the five general options provided in the questionnaire that most closely correspond to the interviewee response. They are presented in order of importance.

The most common assistance provider is IEP support, 89% (n=429) of the schools that experienced technical problems and that requested assistance, reported asking help from this source. Unfortunately, the second most important source is represented by 'other assistance' (18% of the schools). In third place, of the 62 schools that felt in the option 'other who', 35 of these schools reported asking assistance from ITD.

Table 14

Number and percentage of schools that request assistance for each of the assistance suppliers

Assistance suppliers	N	%
<b>1. IEP Support</b>		
No	51	10.6
Yes	429	89.4
Total	480	100
<b>2. Other Assistant</b>		
No	393	81.9
Yes	87	18.1
Total	480	100
<b>3. Other Who?</b>		
ITD (Yes)	35	56.45
School Tec (Yes)	8	12.9
Other	19	30.65
Total	62	100
<b>4. Local district</b>		
No	458	95.4
Yes	22	4.6
Total	480	100
<b>5. Division Special Ed</b>		
No	475	98.96
Yes	5	1.06
Total	480	100

Note: Sample restricted to those that encountered technical problems and that requested assistance.

Learning about changes in the Welligent system

Table 15

Notification of system change: How do the schools learn about changes in the Welligent system?

		N	%
1.	<b>Welligent alert</b>		
	No	335	46.4
	Yes	387	53.6
	Total	722	100.0
2.	<b>Trial and error</b>		
	No	579	80.2
	Yes	143	19.8
	Total	722	100.0
3.	<b>Other personnel</b>		
	No	626	86.7
	Yes	96	13.3
	Total	722	100.0
4.	<b>Memos/directives</b>		
	No	632	87.5
	Yes	90	12.5
	Total	722	100.0
5.	<b>Training</b>		
	No	644	89.2
	Yes	78	10.8
	Total	722	100.0
6.	<b>Other</b>		
	No	694	96.1
	Yes	28	3.9
	Total	722	100.0

Finally, in the OIM Welligent questionnaire the interviewee was asked how he or she gets to know about changes in the Welligent system such as new edits. The results are presented in the preceding table and displayed in order of importance.

In first place the ‘Welligent alert system’ appears to be the most common way in which to learn about changes in the system (54% of the schools choose this option). In second place, the ‘trial and error’ options appear to be very popular (20% of the schools select this option). The third most common way of finding out about changes in the systems is

through ‘other personnel’ (13%). The reader can note that the sample size used to report the frequencies of question 15 corresponded to the original number of schools.

### **Section III: Exploring patterns of responses across questions**

#### Exploring differences across the levels of the indicator of implementation ‘1’

Before interpreting the results presented in the following table 16, it is important to note that the sample sizes of the three implementation groups are extremely different. This compromises the generalizability of the results and the possibility of making accurate comparisons across groups. However, assuming that the level of implementation of the school is independent of the predictors presented in this table, the results shown here can be illustrative of the characteristics of the schools with different levels of implementation or serve as an input to study further these schools (with a different sample or a bigger number of schools).

Taking into account the limitations of these results, we can observe that the average regular enrollment and special education enrollment tend to be higher for those schools with less than 100% use (or with ‘partial’ implementation) than in the other two groups of schools. Instead, the percentage of students receiving lunch tends to be higher in schools with 100% use (or with ‘full’ implementation) compared to the other groups of schools.

Table 16

Descriptive statistics for schools with different levels of implementation

Level of Implem.	Variable	N	Mean	SD	Min	Max
Zero use	Lunch	7	411.6	367.6	0	939
	% receiving Lunch	7	0.45	0.31	0	0.90
	Enrollment	7	684.6	554.6	48	1477
	Spec Ed Enrollment	7	91.7	58.7	5	176
Less than 100% use (partial Imp.)	Lunch	23	1260	1307.4	0	4060
	% receiving Lunch	22	0.63	0.27	0	0.94
	Enrollment	23	1555.9	1472.8	84	4796
	Spec Ed Enrollment	22	224.1	160.4	37	587
100% use (Full Imp.)	Lunch	552	871.5	739.5	0	4379
	% receiving Lunch	526	0.69	0.25	0	1.00
	Enrollment	552	1066.8	861.1	56	5116
	Spec Ed Enrollment	552	118.7	101.6	2	590

In addition the next table shows the distribution of Type of school and enrollment for each implementation group. While for schools with partial implementation the percentage of primary and secondary schools are 39% and 22% respectively, for schools with full implementation these percentages are 73% and 10%. Therefore, based on these frequencies it seems that secondary schools are more common in ‘partial’ than in ‘full’ implemented schools. However, given the unequal distribution of schools across the three levels of implementation, these results should be interpreted with caution.

In terms of the distribution of enrollment, observe that the majority of schools with partial implementation have ‘large’ enrollment (61% of these schools). Instead in the group of schools with full implementation, ‘medium’ (41%) and ‘large’ schools (55%) are both very common.

Table 17

Number and frequency of Type of school and enrollment by levels of implementation

	Implementation					
	Zero use		Less than 100% use (Partial Imp.)		100% use (Full Imp.)	
	N	%	N	%	N	%
<b>Type of School</b>						
Primary	3	42.9	9	39.1	405	73.4
Middle	2	28.6	4	17.4	66	12.0
Secondary	1	14.3	5	21.7	55	10.0
Other	1	14.3	5	21.7	26	4.7
Total	7	100.0	23	100.0	552	100.0
<b>Enrollment</b>						
Small	2	28.6	2	8.7	27	4.9
Medium	2	28.6	7	30.4	224	40.6
Large	3	42.9	14	60.9	301	54.5
Total	7	100	23	100	552	100

#### Classroom access to the Welligent and implementation

Only for schools using the system and for those that have completed the questionnaire, the following table combines information of classroom access and implementation. Given the high levels of implementation observed in table 4, we see in table 18 that even for those schools that responded not having all their special education teachers access the system in their classroom, the percentage with full implementation is very high (92.7%), but higher for schools where all the classrooms have access to the system (97.5%). The results presented in this table suggest that classroom access in general does not limit implementation of the program. This outcome could possible be explained because in some schools the Welligent system can be accessed from the computer lab.

Table 18

Number and percentage of schools with access to the system in all their classrooms by implementation

Classroom Access	Implementation		Total
	Partial	Full	
No	13	164	177
	7.3	92.7	100
Yes	10	388	398
	2.5	97.5	100
Total	23	552	575
	4.0	96.0	100

Use of the Management Module and implementation

To explore if there is a relation between using the management module and the level of implementation of the system, table 19 presents the cross frequencies of these two variables.

Table 19

Number and percentage of schools using the Management Module by implementation

Management Module	Implementation		Total
	Partial	Full	
No	6	53	59
	10.2	89.8	100
Yes	17	499	516
	3.3	96.7	100
Total	23	552	575
	4	96	100

Note: sample size restricted to schools using the system.

Again, because of the high levels of implementation, both groups of schools, non-users and users of the management module present high levels of implementation: while

for the first group is 90%, for the second one this percentage is higher and equal to 97%. Therefore, implementation is high regardless of the use of the management module of Welligent to manage IEP caseloads.

Designated Instruction Services personnel and implementation

Table 20

Number and percentage of DIS personnel using Welligent by implementation

DIS Personnel Using Welligent		Implementation		
		Partial	Full	Total
No	N	8	56	64
	%	34.8	10.1	11.1
Yes	N	15	496	511
	%	65.2	89.9	88.9
Total	N	23	552	575
	%	100	100	100

Note: sample size restricted to schools using the system.

Table 20 shows that 90% of the schools (n=496) that are fully implementing the system also have all their DIS personnel using the system. Instead, within the group of schools that are partially implementing the system, a smaller percentage of schools (65%) have also all their DIS personnel using the system. This larger difference between schools with partial and full implementation might be artificially cause if DIS personnel of the school were also count in question 3 that was used to elaborated the implementation indicator. If not, these results could be indicating that in schools where all the special education teachers use the system, DIS personnel are also more likely to use the system.

Exploring the characteristics of the schools that experienced problems when using the Welligent IEP system

Table 21

Number and percentage of schools that experienced technical problem within the implementation groups

Technical Problems		Implementation		
		Partial	Full	Total
No	N	1	34	35
	%	4.35	6.2	6.1
Yes	N	22	518	540
	%	95.65	93.8	93.9
Total	N	23	552	575
	%	100	100	100

Note: sample size restricted to schools using the system.

Once again Table 21 shows that regardless of the level of implementation the majority of schools encountered technical problems when using the system.

The following tables investigate if the frequency of technical problems varies by Type of school (primary or secondary) or by enrollment size of the schools (small, medium or large).

Table 22

Number and percentage of type of school by technical problems

Type of School	Technical Problems					
	No		Yes		Total	
	N	%	N	%	N	%
Primary	67	14.4	399	85.6	466	100
Secondary	8	12.7	55	87.3	63	100
Total	75	14.2	454	85.8	529	100

Note: sample size restricted to schools using the system.

According to the results of this table, differences between primary and secondary schools in terms of encountering problems with the Welligent system does not seem to exist. To explore if within primary and secondary, schools with different enrollment size experienced more or less problems, we present table 23.

Table 23

Number and percentage of total enrollment by technical problems

Total Enrollment	Technical Problems					
	No		Yes		Total	
	N	%	N	%	N	%
Small	25	54.4	21	45.6	46	100
Medium	26	11.3	205	88.7	231	100
Large	24	9.5	228	90.5	252	100

Note: Only for primary and secondary schools and schools using the system.

Whereas within the group of 'small' schools 46% reported having technical problems, within the group of schools with 'medium' and 'large' enrollment the percentages that experienced problems are duplicated and equal to 89% and 90.5% respectively. Therefore, it seems that as the enrollment size of the school increases, the possibility of encountering technical problems also augments. This is a very interesting result that needs further investigation. For example we could study simultaneously what

other school factors explain the probability of encountering problems when using the system ‘adjusting’ or ‘controlling’ by the enrollment size of the school. In attempt to illustrate these type of analyses, an exploratory logistic regression model that study the probability that a school encounter technical problems, controlling simultaneously for the school size (‘small’, ‘medium’ or ‘large’), type (only for primary and secondary) and a measure of the socioeconomic status of the students attending the school (percentage of students receiving the lunch program) was performed. The result from this exercise cannot be generalized and the specifications of the model needs further revisions. But still this exercise serves as an example of the kind of more complex analyses that can be done if more school data is collected (such as school variables that can be associated to the probability of encountering more problems, or other relevant data like the number of years that the school has been using the Welligent system).

The estimation results from the exploratory logistic analysis are omitted but summarized in this section (see the appendix for more detail). Basically we found that ‘large’ and ‘medium’ schools have a larger and significant probability of encountering problems than smaller schools adjusting for ‘type’ and percentage of students receiving the lunch program. Type of school (if primary or a secondary school) is not significant, but the percentage of students receiving lunch is significant and positively related to the probability of encountering problems. Again, this is an exploratory analysis that need further revisions but that serves as an example of more systematic ways of studying the phenomenon of technical problems.

Besides studying the relation between encountering technical problems and some school characteristics, we investigate if the top four types of technical problems presented in table 11 vary the level of implementation of the system, by type of school, or by enrollment size.

Table 24

Top four technical problems encountered when using Welligent system by implementation

	Implementation			
	Partial		Full	
Top Four Problems	N	%	N	%
Problems using program	11	30.6	347	40.8
Access to Welligent	9	25.0	170	20.0
Other	2	5.6	116	13.6
Problems printing	6	16.7	97	11.4

The percentages of Table 24 were obtained by dividing the number of observations in each category over the total number of responses for partial (n=36) and full (n=850) implemented schools. Note that these percentages do not add up to 100% because this table is restricted to the top four problems. In general, the option ‘problems using the program’ seems to be more frequent in schools with full implementation. In term of the other problems, no major differences are found between these two levels of implementation.

Table 25

Top four technical problems encountered when using Welligent system by type of school

	Type of school			
	Primary		Secondary	
Top four problems	N	%	N	%
Problems using program	264	0.41	30	0.32
Access to Welligent	113	0.18	27	0.29
Other	93	0.15	7	0.07
Problems printing	79	0.12	8	0.09

Note: Sample size restricted to partial and full-implemented schools and for those that reported technical problems.

Again the percentages of Table 25 were obtained by dividing the number of each category by the total number of responses for primary (n= 641) and for secondary (n=94). In both levels the option ‘problems using program’ is the most common difficulty. In secondary schools the problem related to ‘access to Welligent’ appear to occur with relatively more frequency than in primary schools.

Table 26

Top Four Problems encountered when using Welligent system by enrollment size

Top Four Problems	Enrollment					
	Small		Medium		Large	
	N	%	N	%	N	%
Problems using program	18	0.44	153	0.43	190	0.38
Access to Welligent	13	0.32	56	0.16	114	0.23
Other	5	0.12	51	0.14	64	0.13
Problems printing	2	0.05	45	0.13	56	0.11

Note: the total number of responses for the enrollment category small is 41, for medium is 354 and for large 502.

In relation to enrollment size, again the option ‘problems using program’ is the most frequent problem in the three groups. The option ‘access to Welligent’ is relatively more frequent in ‘small’ schools than in medium or large schools. In contrast, ‘problems printing’ are not a common problem in ‘small’ schools but more recurrent in ‘medium’ and ‘large’ schools.

Finally, the frequencies of question 10 that inquired if the problems experienced when using the system impeded the ability of the school to complete IEPs within the timelines required by law, is analyzed separately for the two different levels of implementation, for the two type of schools (primary and secondary), and for the three groups of schools with different enrollment sizes.

Table 27

Number and percentage of schools in which the problems impeded their ability to complete the IEPs within the timelines and implementation

Problems Impeded	Implementation			
	Partial		Full	
	N	%	N	%
No	10	45.5	294	56.8
Yes	12	54.6	224	43.2
Total	23	100	552	100

Note: Sample restricted to schools that encountered technical problems.

While for partial implemented schools 55% answered ‘yes’ to question 10, in fully implemented schools a smaller percentage 43% responded ‘yes’ to the same question.

Table 28

Number and percentage of schools in which the problems impeded their ability to complete the IEPs within the timelines and type of school

Question 10	Primary		Secondary	
	N	%	N	%
No	309	66.3	21.0	38.9
Yes	157	33.7	33	61.1
Total	466	100	54	100

Note: Sample restricted to partial and full-implemented schools and for those that encountered technical problems.

Interesting when analyzing question 10 for primary and secondary separately, we find that 34% of the primary schools responded that the problems they encountered using the Welligent system did impeded their ability to complete IEP within the timelines required by law. In contrast, in secondary schools this percentage is much higher and equal to 61%. In other words, when a secondary school experienced problems using the system, these difficulties are more likely to impede the school’s ability to complete the IEP within the timelines required by law with more frequency than in a primary school.

Table 29

Number and percentage of schools in which the problems impeded their ability to complete the IEPs within the timelines and enrollment size categories

Problems Impeded	Small		Medium		Large	
	N	%	N	%	N	%
No	36	85.7	147	63.9	147	59.3
Yes	6	14.3	83	36.1	101	40.7
Total	42	100	230	100	248	100

Note: Sample restricted to partial and full-implemented schools, to schools that encountered technical problems, and to primary and secondary levels.

As the enrollment size of the school increases, the percentages that answered ‘yes’ to question 10 also increase. These percentages are equal to 14%, 36%, and 41% for ‘small’, ‘medium’ and ‘large’ schools respectively. As a result, not only the schools with larger enrollment tend to encounter more problems than the smaller schools, but also these problems tend to be more critical in these schools.

To sum up, if a secondary school or a school with ‘medium’ and ‘large’ enrollment sizes encounter technical problems this school is more likely to fail in completing the IEPs within the time period demand by law.

#### **Section IV: Defining a more complex indicator of implementation of the Welligent system**

Another indicator of implementation (from now on denominated ‘indicator 2’) was also elaborated by adding the information of question 6 or ‘use of the Management Module’ and the data of question 7, or use of the system by all DIS personnel. The levels of this indicator were defined as follow: if all the special education personnel in the school use the system, then implementation is considered to be equal to ‘1’. If all the special education personnel use the system and at least one staff member in the school uses the management module<sup>8</sup>, then implementation is considered to be higher or ‘2’. Finally, if the previous two alternatives are satisfy, and also all the DIS personnel assigned to the school use the Welligent, then implementation is considered to be higher or 3. The distribution of this indicator of implementation is presented in the following table.

Table 30  
Distribution of the indicator of implementation 2

	N	%
Level 1: 100% of the staff use system	53	9.6
Level 2: 100% staff & use of Management Module	42	7.6
Level 3: 100% staff, Management Module & all DIS personnel use system	457	82.8
Total	552	100

Based on this indicator, 10% of the schools are classified as having a level of implementation 1, which means that in these 53 schools all their special education teachers use the program but do not satisfy the other two requisites. In addition, 8% of the schools are in level 2, indicating that in these 42 schools all the staff use the Welligent

<sup>8</sup> Notice that in question 6 ask if ‘you’ or ‘any other staff’ in your school is using the management module... This implies that if at least one person is using the system, then the answer is ‘yes’.

system, at least one staff member use the Management Module, but not all the DIS personnel use it. Finally, 83% of the schools are in level 3, implying that in these schools 100% of the special education teachers use the system, at least one staff uses the management module, and all the DIS personnel use it as well.

Subsequently if we judge the level of implementation of the Welligent system based on indicator 2, the results are still very positive but less optimistic than if we judge based on indicator 1. For instance a less percentage of schools are fully implementing the system based on this new indicator: while with indicator 1, 95% of the schools are in these category, with indicator 2 this percentage is reduced to 83%.

The information provided by this new indicator also help characterized better the 552 schools that are fully implementing the system based on indicator 1: 9.6% of these schools have all their staff using the system but do not satisfy the other two conditions, 7.6% of the schools satisfy the first two conditions but no third one, and 82.8% of the schools satisfy the three conditions.

#### Exploring differences across the levels of the indicator of implementation '2'

In contrast with the distribution of schools across the levels of the indicator 1, for indicator 2 the sample sizes are slightly better distributed across the three groups. The following Table 31 shows that the percentage of students receiving lunch is slightly higher for those schools in level 3 than schools in levels 1 and 2. Also, schools in Level 1 tend to be on average slightly bigger in enrollment (regular and special education) than schools in the other two groups. However, any of these differences are likely to be significant considering the standard deviations. This was confirmed by an exploratory ANOVA analyses that showed that none of these differences are likely to be significant<sup>9</sup>.

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<sup>9</sup> The ANOVA analyses are exploratory because each of these predictors were modeled –one by one- as a function of the implementation factor and without adjusting for the effects of other covariates.

Table 31

Descriptive statistics of schools with different levels of implementation (indicator 2)

Implementation 2 Levels:	Variable	N	Mean	SD	Min	Max
<b>Level 1:</b>	Lunch	53	1008.2	1047.7	0	4154
100% Staff	% receiving Lunch	51	0.64	0.3	0	1
	Enrollment	53	1281.5	1173.6	56	4799
	Spec Ed Enrollment	53	144.0	141.6	10	590
<b>Level 2:</b>	Lunch	42	792.8	618.7	0.0	2615.0
	% receiving Lunch	40	0.67	0.3	0.0	1.0
100% staff & management module	Enrollment	42	930.8	620.4	64	2529.0
	Spec Ed Enrollment	42	117.8	94.2	14	318.0
<b>Level 3:</b>	Lunch	457	862.9	706.0	0	4379
100% staff & management module	% receiving Lunch	435	0.70	0.2	0	1
& all DIS personnel	Enrollment	457	1054.4	834.9	69	5116
	Spec Ed Enrollment	457	115.9	96.5	2	558

Table 32

Number and percentage of Type of school and enrollment by the indicator of implementation 2

	Implementation Indicator 2					
	Level 1		Level 2		Level 3	
	N	%	N	%	N	%
<b>Type of School</b>						
Primary	29	54.7	26	61.9	350	76.6
Middle	7	13.2	9	21.4	50	10.9
Secondary	14	26.4	3	7.1	38	8.3
Other	3	5.7	4	9.5	19	4.2
Total	53	100.0	42	100.0	457	100.0
<b>Enrollment</b>						
Small	6	11.3	3	7.1	18	3.9
Medium	17	32.1	17	40.5	190	41.6
Large	30	56.6	22	52.4	249	54.5
Total	53	100.0	42	100.0	457	100.0

The majority of schools in the three levels are primary schools (55%, 62% & 77% for levels 1, 2 and 3 respectively). Also, while in level 1 the second most important type of school is secondary (26%), in levels 2 and 3 are middle schools (21% & 11% respectively). Thus in general there seems to be a tendency in having less primary schools for low levels of implementation but more secondary schools. This trend was also somewhat observed in table 17 with the indicator of implementation 1 but due to the very extreme sample sizes we interpreted this result with cautious.

In terms of enrollment, there does not appear to be large differences across the three levels.

Classroom access and indicator of implementation 2

Table 33 presents the cross information of classroom access and the indicator of implementation 2. Even though, the percentage of schools that are implementing the system is very high, in this table we can still discern some differences between schools that have classrooms access and those that do not. For example, within the group that has no access, even though most of the schools are in level 3, a non-ignorable 17% is in level 1. Instead, within the group that has classroom access, 86% are in level 3 and only 7% are in level 1.

Table 33

Number and percentage of schools with access to the system in all their classrooms by the indicator of implementation 2

Classroom Access	Implementation 2			Total
	Level 1	Level 2	Level 3	
No	27	12	125	164
	16.5	7.3	76.2	100
Yes	26	30	332	388
	6.7	7.7	85.6	100
Total	53	42	457	552
	9.6	7.6	82.8	100

Given that the information of management module and DIS personnel were used to define the indicator of implementation 2, the cross tables of these variables were omitted.

Technical problems and indicator of implementation 2

Table 34

Number and percentage of schools that experienced technical problems by the indicator of implementation 2

Implementation Indicator 2				
Technical Problems	Level 1	Level 2	Level 3	Total
No	2	5	27	34
	3.8	11.9	5.9	6.2
Yes	51	37	430	518
	96.2	88.1	94.1	93.8
Total	53	42	457	552
	100	100	100	100

Note: sample size restricted to schools using the system.

Table 34 confirms that regardless of the level of implementation of the system, the percentage of schools that experienced technical problems is very high. For the three levels of implementation the percentages of schools that experienced technical problems are 96%, 88% and 94% respectively.

Table 35

Top four problems encountered when using Welligent system by implementation 2

Top Four Problems	Implementation 2					
	Level 1		Level 2		Level 3	
	N	%	N	%	N	%
Problems using program	37	0.43	25	0.40	285	0.41
Access to Welligent	27	0.31	13	0.21	130	0.19
Other	5	0.06	10	0.16	101	0.14
Problems printing	2	0.02	7	0.11	88	0.13

Note: For all types of schools.

The percentages of table 35 were obtained by dividing the number of observations for each category within each level by the total number of responses for that particular level. The sample sizes for levels 1, 2 and 3 are 86, 63 and 701 respectively.

Despite the level of implementation, the most common problem is ‘problems using program’. The problem related to ‘access to Welligent’ appear to be more important in schools with level 1 of implementation of the system, while the other two type of problems ‘other’ and ‘problems printing’ seem to be irrelevant in this group of schools. Instead for schools with levels of implementation 2 and 3, the problem denominated ‘other’ and ‘problems printing’ appear to be more relevant.

## Recommendations

The present section aims at suggesting a few recommendations that arise from the analysis of the OIM Welligent questionnaire. Notice however that some of the suggestions might appear redundant, since they are based solely on the OIM questionnaire, and might not incorporate aspects related to the functioning of the system that are not mentioned in such questionnaire. Having said that, please take into account from this section those suggestions that you consider pertinent or beneficial to improve the OIM/Welligent questionnaire.

- Validity and reliability

The goal of this instrument was to obtain information about the levels of implementation of the Welligent system in LAUSD. Stating this goal, the validity of this instrument can be then judged in terms of ‘how well it measures what it is intended to measure’.

If it is well-established that implementation of the Welligent system can be measured fairly well with the set of questions included in this questionnaire (if they have been demonstrated to be both reliable and valid), and if all the questions and their scales are pertinent to this particular population of schools, then the validity of this instrument can be assured to a certain extent.

However, to judge the validity of the instrument it is also necessary to consider the limitation that self-report surveys have. As it is well known, these kinds of surveys are susceptible to some bias in responding, which affect the accuracy of the responses. Commonly the interviewee will tend to slightly under-report socially undesirable behaviors and slightly over-report socially desirable behaviors. It is hard for us to judge if there are some questions that are more likely to be bias than others. But in general we consider that the questions are very straightforward but in some cases too general. We have found some inconsistencies across the questions that can be controlled by the interviewer and by making sure that the questions follow a logical sequence.

The question that remains is if there are other aspects of the functioning of the Welligent system that might need to be asked in order to have a better sense of the level of implementation of the system. Since 94% of the schools reported encountering problems when using the system and given that the most common problems are ‘problems using the program’ and ‘access to Welligent’ it is very likely that even though the majority of special education teachers are using the system, they might not be using it in a satisfactory way. Therefore, refining the alternatives for the question ‘type of problems’ and studying further how the teachers are using the system might be the next step to follow to evaluate how well the implementation is being achieved. An alternative is to also pursue a qualitative study in a few schools randomly selected from the sample of 722. In these schools we can pursue a more in-depth study of the implementation of the Welligent system. Semi-structured observation protocols can be designed to capture the dynamics of the school and use of the system by the teachers in ‘their own terms’. By using a variety of measurement tools we will obtain a more comprehensive description of the functioning of the Welligent system and identify those aspects that need further revision or improvement.

About some of the questions:

- A strong recommendation to maintain consistency across the questions is to distinguish between the ‘no’ answers from the missing values. Also by doing this it will be easier to check consistency of those questions that depend on the answer of the previous question.
  
- A question to ask is if it is important to know how many Designated Instruction and Service (DIS) personnel are using the system. If so then instead of asking in question 7 if “all” DIS personnel are using the system, we can ask two questions instead: ‘how many DIS personnel is assigned to your school?’ and ‘approximately how many of these DIS personnel are using the Welligent?’. The problem with the actual form of the question is that if the interviewee respond

- 'no', we cannot distinguish if he or she aim to say: "no DIS personnel are using the system" from the "no all the DIS personnel assigned to my school is using the system".
- Similarly, in question 5 it is asked if 'all' special education teachers in the school have access to Welligent in their classroom. A 'no' answer for this question might signify: 'no special education teacher have access to the system in their classroom', or 'no all special education teachers have access to the system in their classrooms'.
  - Since classroom access to the Welligent does not limit implementation, it could be interesting to explore the other forms that these schools are using to access the system. For instance knowing these other forms could be important if providing access to the system within the classrooms is particularly costly.
  - To know better the characteristics of the schools it will be useful to collect other types of information besides enrollment size and lunch. For example more information about the characteristics of the schools that can be related to functioning of the system, such as years using the system.
  - Given the large percentage of schools encountering technical problems it will be more useful to classify the technical problems in ways which later can serve as inputs to the administrators of the system to resolve these problems. Even though it is not feasible to code all the problems, it might be useful, at least once, to keep this question as open-ended instead of providing a defined list of alternative problems for the interviewee to choose. By doing this, the reported problems can then be classified in more valid alternatives than can provide direct inputs to improve the system.

## Appendix

### Logistic regression analysis results

```
. xi: logit technica i.size2 type prlun if type==1 | type==3 & qlr==1
i.size2      _Isize2_1-3      (naturally coded; _Isize2_1 omitted)
```

```
Iteration 0:  log likelihood = -183.44424
Iteration 1:  log likelihood = -160.42327
Iteration 2:  log likelihood = -154.71347
Iteration 3:  log likelihood = -153.64917
Iteration 4:  log likelihood = -153.64589
Iteration 5:  log likelihood = -153.64589
```

```
Logit estimates                                Number of obs   =          435
                                                LR chi2(4)      =          59.60
                                                Prob > chi2     =          0.0000
Log likelihood = -153.64589                    Pseudo R2      =          0.1624
```

technica	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
_Isize2_2	2.280749	.4451773	5.12	0.000	1.408218	3.153281
_Isize2_3	1.98144	.4595274	4.31	0.000	1.080783	2.882097
type	.4108639	.2447425	1.68	0.093	-.0688226	.8905504
prlun	1.469989	.4555749	3.23	0.001	.577079	2.3629
_cons	-1.522446	.5424009	-2.81	0.005	-2.585532	-.4593599

**Attachment C: Types and Frequency of Problems for Respondents reporting “Problems Using [Welligent] Program” and “Other [Problems]”**

**Table I  
Types and Frequency of Problems for Respondents reporting “Problems Using [Welligent] Program” and “Other [Problems]”  
School Level and Overall**

	# of Responses	Slow/Time Consuming	Cannot Amend	No Translation	Problems Saving	Password Problems	Can't Close IEP	Difficulty Adding/Deleting Students	No Spell Check	Problem With Student Transfers
Centers	18	7	3	1	4	1	3	0	0	1
		38.89%	16.67%	5.56%	22.22%	5.56%	16.67%	0.00%	0.00%	5.56%
Elementary	458	141	131	9	30	18	88	25	33	47
		30.79%	28.60%	1.97%	6.55%	3.93%	19.21%	5.46%	7.21%	10.26%
Middle School	81	32	25	1	2	5	3	8	1	8
		39.51%	30.86%	1.23%	2.47%	6.17%	3.70%	9.88%	1.23%	9.88%
High School	107	26	18	0	4	5	4	7	1	9
		24.30%	16.82%	0.00%	3.74%	4.67%	3.74%	6.54%	0.93%	8.41%
District	664	206	177	11	40	29	98	40	35	65
		31.02%	26.66%	1.66%	6.02%	4.37%	14.76%	6.02%	5.27%	9.79%

**Table II**  
**Types and Frequency of Problems for Respondents reporting “Problems Using [Welligent] Program” and “Other [Problems]”**  
**Local District and Overall**

	# of Responses	Slow/Time Consuming	Cannot Amend	No Translation	Problems Saving	Password Problems	Can't Close IEP	Difficulty Adding/Deleting Students	No Spell Check	Problem With Student Transfers
District 1	122	48	28	2	10	9	24	9	5	13
		39.34%	22.95%	1.64%	8.20%	7.38%	19.67%	7.38%	4.10%	10.66%
District 2	89	33	29	3	3	3	15	4	5	10
		37.08%	32.58%	3.37%	3.37%	3.37%	16.85%	4.49%	5.62%	11.24%
District 3	96	23	27	3	4	4	17	9	8	8
		23.96%	28.13%	3.13%	4.17%	4.17%	17.71%	9.38%	8.33%	8.33%
District 4	94	25	30	0	6	4	8	5	4	10
		26.60%	31.91%	0.00%	6.38%	4.26%	8.51%	5.32%	4.26%	10.64%
District 5	81	21	23	1	6	3	11	3	0	5
		25.93%	28.40%	1.23%	7.41%	3.70%	13.58%	3.70%	0.00%	6.17%
District 6	37	12	10	0	0	2	2	3	3	7
		32.43%	27.03%	0.00%	0.00%	5.41%	5.41%	8.11%	8.11%	18.92%
District 7	61	19	10	2	1	1	10	3	6	5
		31.15%	16.39%	3.28%	1.64%	1.64%	16.39%	4.92%	9.84%	8.20%
District 8	84	25	20	0	10	3	11	4	4	7
		29.76%	23.81%	0.00%	11.90%	3.57%	13.10%	4.76%	4.76%	8.33%
LAUSD	664	206	177	11	40	29	98	40	35	65
		<b>31.02%</b>	<b>26.66%</b>	1.66%	6.02%	4.37%	<b>14.76%</b>	6.02%	5.27%	9.79%

7/1/2005