The Institutes of Higher Education Checklist Report

Illinois ASPIRE Project Evaluation

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Submitted by the Center for School Evaluation, Intervention, and Training

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General Overview

The Institutes of Higher Education (IHE) Checklist (see http://www.luc.edu/cseit/i-aspireresourcesforcoordinator.shtml) was designed to review pre-service and graduate curricula at institutions within the context of the Illinois Alliance for School-based Problem-solving and Intervention Resources in Education (I-ASPIRE) project. The purpose of this tool is to evaluate the extent to which the IHE curricula include the problem solving process, response to intervention (RtI), and early intervening services content. Syllabi for courses that contained curricula that most directly addressed knowledge and skills required in implementing problem solving and RtI, including designing and implementing early intervening services, were reviewed using the IHE Checklist. The IHE Checklist was completed by an expert rater from each of the four regions of I-ASPIRE (i.e., North Region, South Region, Central Region, and Chicago Public Schools Region). Part of the evaluation plan for I-ASPIRE is to determine the need for training in the area of RtI at the pre-service level. This study was a first step toward identifying the current status of integration for RtI content within a sample of Illinois universities using this instrument.

Method

Participants and Sampling

A convenience sample was used whereby each regional evaluator identified at least one university located within the respective I-ASPIRE geographical boundary. Further, purposive sampling was used to identify departments at each university that would potentially be addressing RtI in their pre-service content. Additionally, interview information was needed beyond what was provided in the review of permanent products. Critical sampling was used, in that the National Council for the Accreditation of Teacher Education (NCATE) coordinator was contacted at each university for the interview portion of the checklist. If this person could not address the question from the interview, snowball sampling was used, whereby the NCATE coordinator would suggest a person better suited to address a particular question (e.g., instructional faculty).

Measure

Tool development, modification, and refinement were iterative processes. Initial development of the tool was generally based on pre-existing constructs provided by Dr. Daniel

Reschly. These ideas were stated in a tool he originally designed to evaluate IHE special education curricula for content in scientifically based reading instruction, classroom organization (including behavior management), and inclusive practices. In addition, components of Dr. Mark Shinn's Content Matrix were reviewed in the development of this tool for both content and scale construction. Next, various work groups, including content experts, were formed to develop the project assessments. The work groups identified specific items that related to the project goals, evaluation questions, and theory of implementation (e.g., identifying systems practice, data sources, and outcomes) for RtI. Components of the tool were reviewed for judgmental validity by a multidisciplinary team at a partner university. Where existing items were not available, new items were created and aligned with the evaluation plan. Items that were included from existing tools were deemed valid by content experts. Items were reviewed for quality (e.g., content and clarity). Next, the draft instrument was submitted for review for judgmental validity with additional external content experts. Finally, the I-ASPIRE regional evaluators piloted and reviewed the tool for content validity. The four I-ASPIRE regions piloted the tool with designated departments within their key partner IHEs (one per region) in spring 2008. Specifically, each region focused on reviewing a different school of education within the four IHEs, including school psychology, general education, special education, and educational leadership (administration). As a result of this pilot, modifications were made to the tool in September 2008 which led to the current version of this instrument.

Procedures

The current application of the IHE Checklist occurred in the late fall and early summer of 2009. Each I-ASPIRE regional evaluation coordinator was asked to contact an IHE that was partnering in their project, and then review syllabi and conduct follow up interviews with that IHE to obtain additional information using an interview protocol. The following is a summary of the process.

Administration.

Administration of the IHE Checklist involved the following steps:

- The ASPIRE regional evaluator met with the contact person for each IHE in the department of interest.
- The IHE representative collected two to three syllabi for the courses that contain pre-service curricula that most directly address knowledge and skills required to implement the problem-solving process and RtI, including designing and implementing early intervening services.
- The ASPIRE regional evaluator reviewed the syllabi and rated them using the IHE Checklist.
- The ASPIRE regional evaluator contacted the NCATE director to conduct a follow-up interview.
- The interviewer provided the interviewee with a copy of the tool in advance.
- If the NCATE director was able to answer each of the regional evaluator's questions, the interview was considered to be completed. If additional information was needed, the instructor of record was contacted (i.e., snowball sampling was conducted).
- If the initial contact could not answer the questions, a request was made to contact another instructor who could respond (i.e., snowball sampling was conducted).

The checklist consisted of five sections, as shown in Table 1 below.

Table 1. ***Sections of the IHE Checklist***

Section 1:	Three-Tier Problem Solving and Response to Intervention
Section 2:	Universal Screening and Problem Identification
Section 3:	Scientifically Based Reading Instruction in a Three Tier Model
Section 4:	Scientifically Based Progress Monitoring Tools
Section 5:	Effective Problem Solving Teams

Ratings were based on the rating scale delineated Table 2.

Table 2. ***Rating Scale for the IHE Checklist***

Rating	Meaning of Score
0	No evidence that the component is included in the class
1	Component is mentioned in the class
2	Component is mentioned in the class AND there are required readings, assignments, and/or projects for application

A higher rating indicated that the curriculum included problem solving, RtI, and early intervening services content.

Interview.

As stated in the administration steps listed above, after completing the syllabi review, the ASPIRE staff contacted the NCATE director to conduct a follow-up interview. Interview questions were provided on the last page of the IHE Checklist. The ASPIRE staff recorded responses to the interview questions in the space provided.

After reviewing the two to three syllabi provided by a program, the reviewer wrote a note describing the data collected, then contacted the IHE representative and asked the following questions:

1. How does your program prepare pre-service students to participate in three-tier problem solving models and Response to Intervention?
2. How does your program prepare pre-service students to participate in universal screening and problem identification as part of this model?
3. How does your program prepare pre-service students to implement scientifically-based reading instruction as part of this model?
4. How does your program prepare pre-service students to implement scientifically-based progress monitoring in a three-tier model?
5. How does your program prepare pre-service students to participate in effective problem solving teams?

Space was left for additional questions that arose from the interview. Only two of the five schools submitting syllabi completed the interview process described.

Analysis

The following section provides a brief explanation of the analysis processes for quantitative and qualitative data.

Quantitative.

Descriptive reporting (i.e., summary of outcomes) was used to describe the results for the coding of the syllabi as provided by the regional evaluators.

Qualitative.

A constant comparative method of data analysis was used because the coding scheme was not predetermined prior to interviews. The coding scheme emerged from the data. Interview documents were broken down into open codes. Codes were put together in logical connective ways, which created major categories. Selective coding created core categories into which other codes were placed to describe what the courses looked like and how topics were implemented. The qualitative questions for this instrument were based on the five broad constructs for this survey: (a) general preparation regarding the RtI process, (b) participation in universal screening, (c) use of scientifically based reading instruction, (d) use of scientifically based progress monitoring processes, and (e) participation in effective problem solving teams. Each of the IHEs had the opportunity to respond to these prompts during the interview conducted by the I-ASPIRE evaluator.

Trustworthiness.

A major concern of all social research, quantitative or qualitative, is demonstrating the substantive and methodological trustworthiness of the research. In both cases, the primary issue is that of rigor, or the extent to which the truth value, consistency, applicability, and neutrality of the research and results can be supported (Guba, 1981). In this study, a major concern was establishing the credibility of the data (e.g., that the stated themes of the qualitative report would be found credible by the research participants). One method used to establish credibility is triangulation. In this report, multiple data sources were used to support the development of themes (Lincoln & Guba, 1985). Additionally, a confirmability audit was conducted by the second author of this report based on the audit trail (e.g., documentation of coding and source documents) provided by the second author. The purpose of this audit was to establish the confirmability of the data (e.g., that the themes were grounded in the data), thus increasing its trustworthiness (Lincoln & Guba, 1985; Skrtic, 1985).

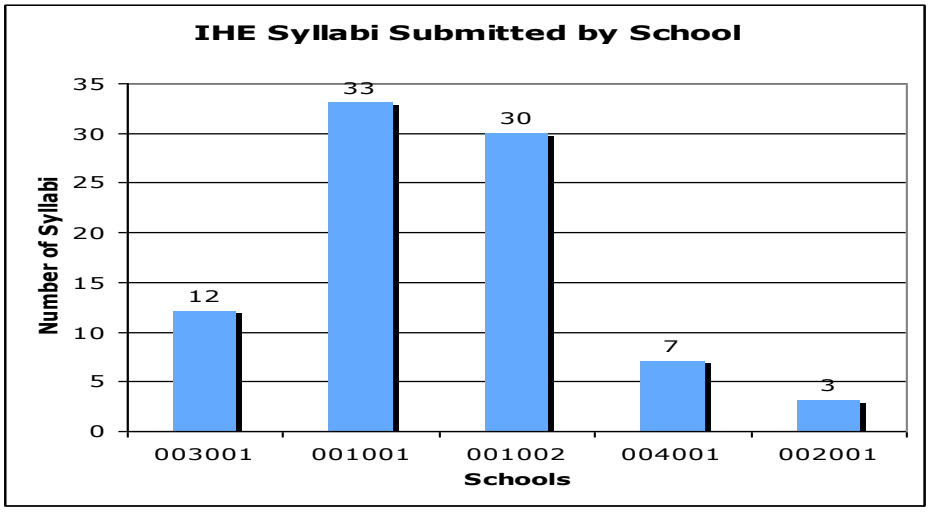
Results

The following section provides an overview of the results for the data collection from this cycle of the IHE Checklist. The checklist consisted of five sections (detailed in Table 1 above) each with three to four questions. Items were given a weight of 0 to 2 (detailed in Table 2 above) based on the level of implementation. The following results examine the proportion of items at each level of implementation, indicating the prevalence of that component of RtI in the syllabi.

Checklist Results

Five universities participated in the coding of the IHE Checklist across four regions within the State of Illinois (i.e., North Region, South Region, Central Region, and Chicago Public Schools Region). Eighty-five syllabi were submitted for review; the number of syllabi submitted by each participating university is shown in Figure 1 below.

Figure 1



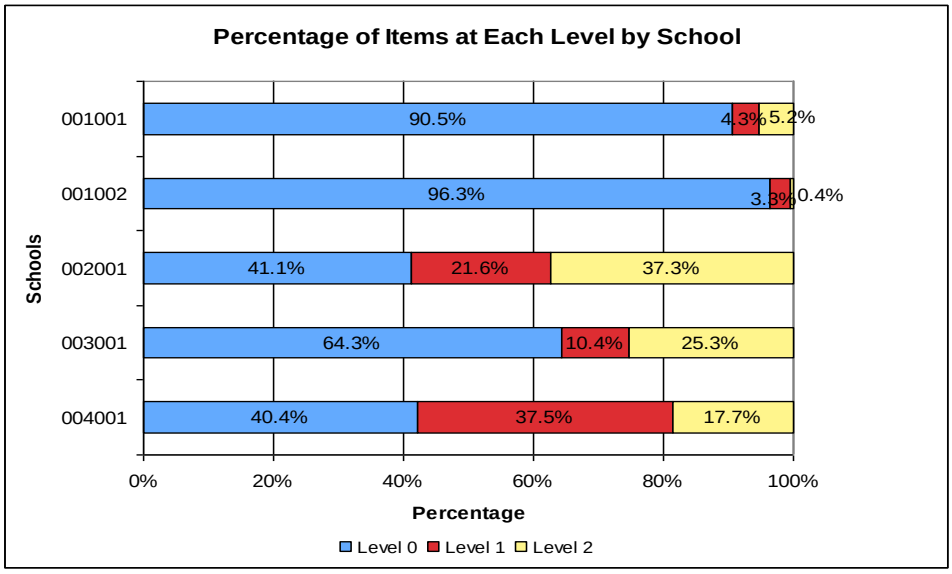
There was a wide variety in the number and type of syllabi submitted by each university. As a result, subcategories were examined. First, syllabi from each university were reviewed to determine the implementation level within each school. Next, specific programs were examined across schools to determine the prevalence of RtI instruction within specific types of courses. The number and type of syllabi received from each school is illustrated in Table 3 below.

Table 3. ***Syllabi Received (by types of course)***

IHE	Special Ed.	School Psych.	Admin.	Gen. Ed.	Early Childhood	Reading	Secondary Ed.	Elem. Ed.
001001	12	6			6			9
001002	6	6			6	6	6	
002001	3							
003001	4	3	3	3				
004001	3		2	2				

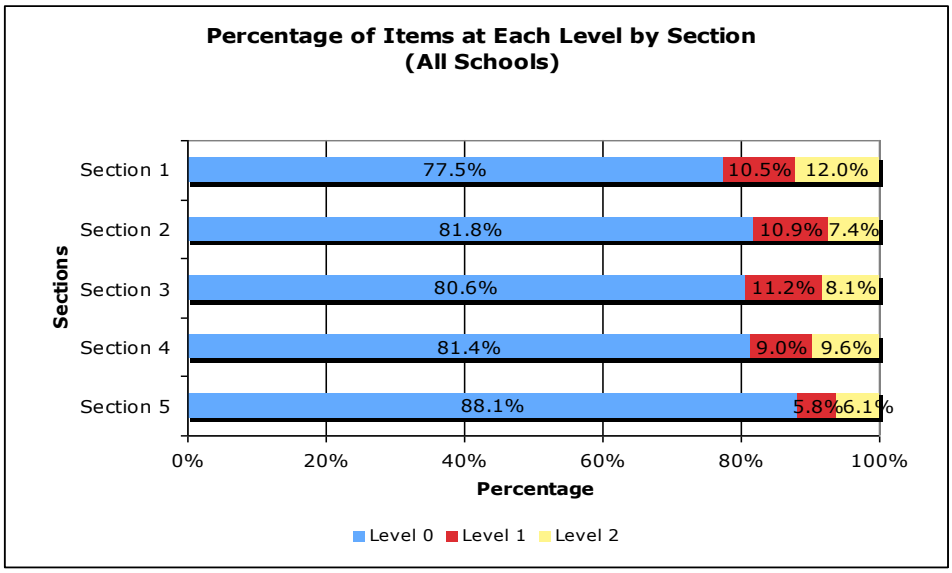
The graph in Figure 2 below displays the overall implementation level of each university. These data show that 002001 implemented components at a higher level than the other universities, with 37% of items at Level 2. Accordingly, 37% of the items from all sections were evident in the syllabi submitted by 002002. However, 002001 also submitted the fewest number of syllabi and only those from special education classes, which may have influenced these outcomes.

Figure 2



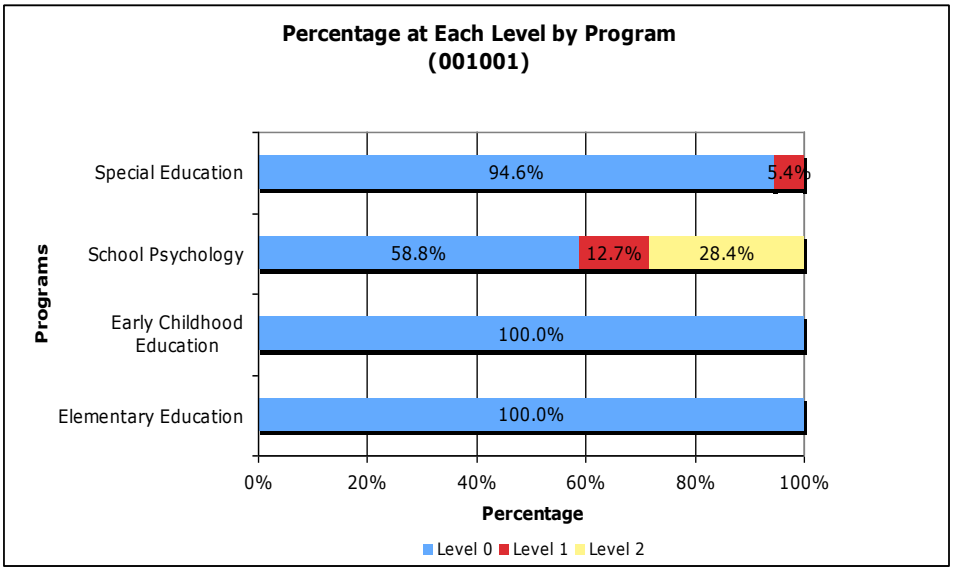
The following graph in Figure 3 subcategorizes the content into the five basic sections of the IHE Checklist that are listed in Table 1. The graph illustrates that all sections were implemented to some degree. Universities implemented the topics of the three-tiered problem solving model and RtI more often than the other sections; however, all sections had more than 75% of the items at a Level 0, indicating no evidence of a majority of the components involved in RtI in course syllabi.

Figure 3



The graph shown in Figure 4 subdivides the syllabi by type of course. Upon review of this graph, it becomes clearer that some programs (e.g., school psychology and administration) implemented components of RtI at higher levels in their instruction in comparison to other programs.

Figure 4



Results by University

University 001001.

IHE 001001 returned 33 syllabi, covering four different course areas. Overall, IHE 001001 did not implement or mention many of the components of RtI in their coursework, with 90.5% of the components at a Level 0. Figure 5 shows the breakdown of ratings within the five sections in the IHE checklist. Courses introduced the concept of scientifically based progress monitoring tools at a higher level than other sections; however, over 83% of items covered in this section were reportedly not mentioned in class or applied in assignments. Further, as indicated in the graph, problem solving groups were not mentioned at all at IHE 001001 in this sample.

Figure 5

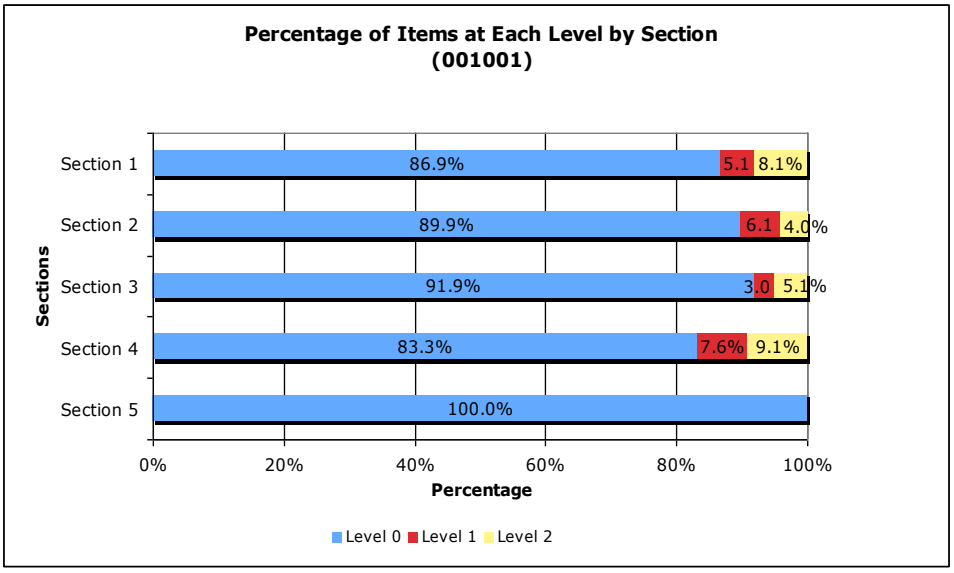
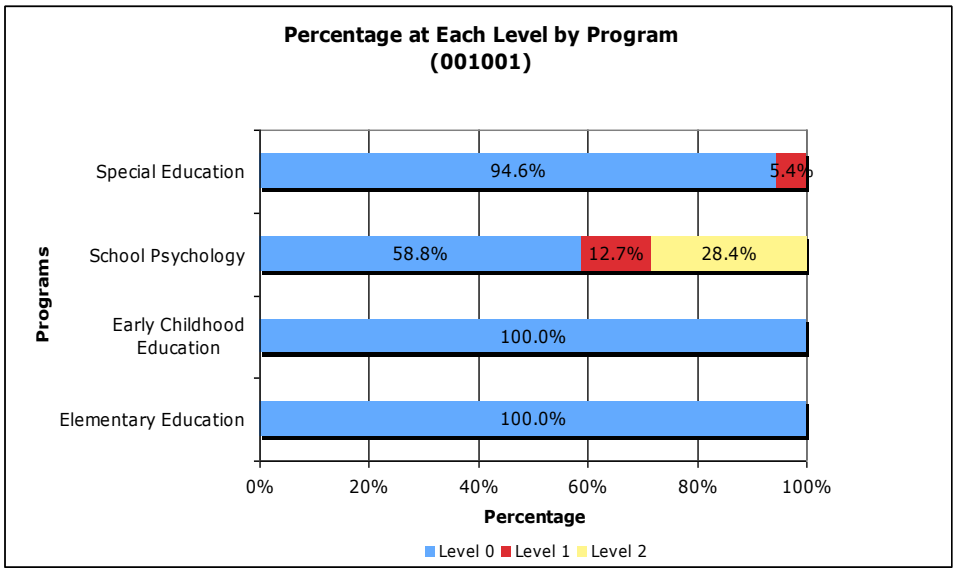


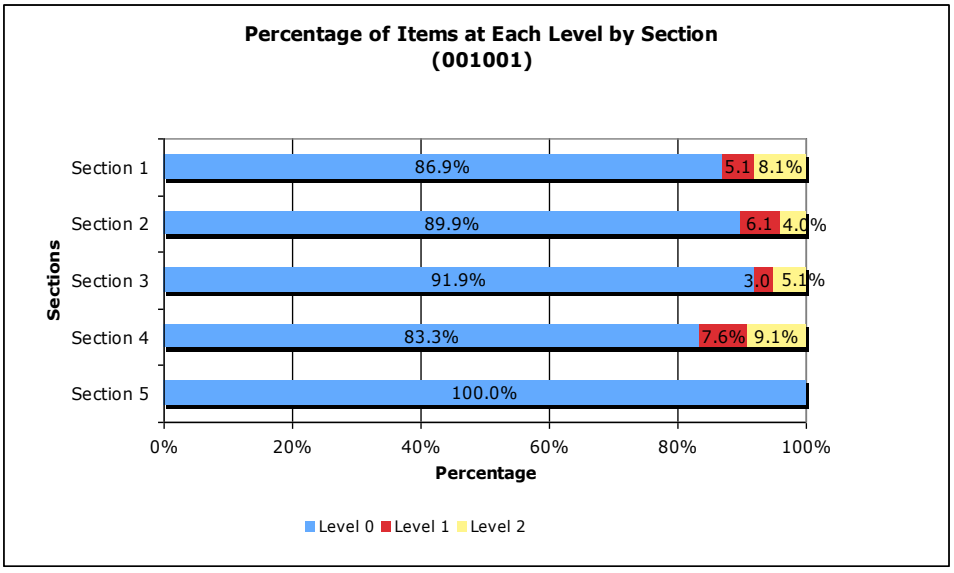
Figure 6 shows that elementary education and early childhood education courses conducted at IHE 001001 did not integrate RtI topics into the curricula. Only 5.4% of components were mentioned in the special education course.

Figure 6



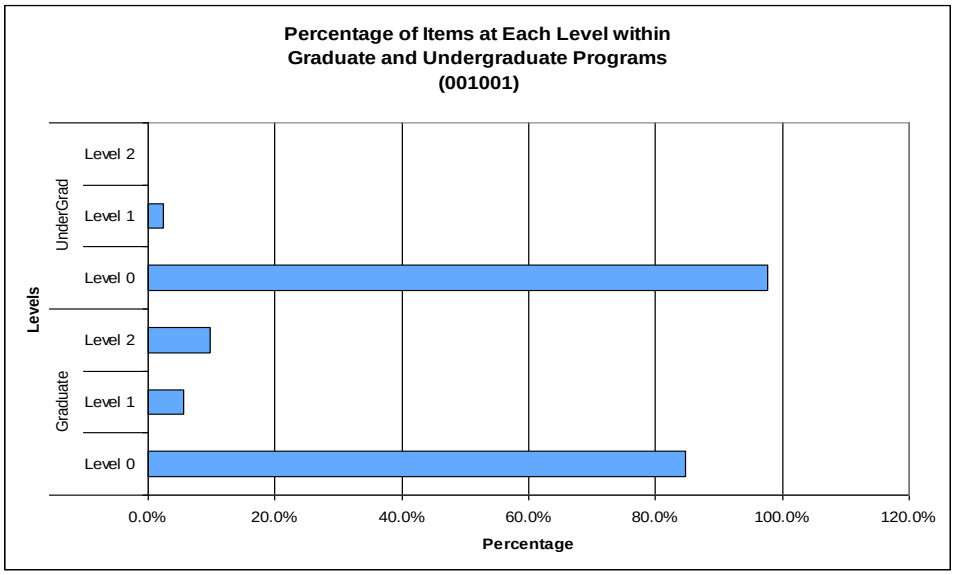
The school psychology program stood out among the programs at IHE 001001. This program submitted six syllabi for review. The graph in Figure 7 below compares the different sections of the IHE Checklist within the syllabi from this program. Half of the items in Section 4 and Section 5 were implemented fully. In other words, students not only heard about scientifically based progress monitoring tools and effective problem solving teams, but also completed assignments and projects relating to those topics.

Figure 7



IHE 001001 also submitted graduate and undergraduate syllabi. Figure 8 shows ratings in graduate courses as well as undergraduate courses. There was a clear distinction on the IHE Checklist between graduate and undergraduate classes. Evidence of RtI content in the syllabi of graduate classes occurred 15% of the time, but only 2.4% of the time in undergraduate courses.

Figure 8



University 001002.

IHE 001002 returned 30 syllabi. Over 96% of the items were rated at a level 0. As shown in Figure 9, a majority of the components of RtI were not evident in the sample. Section 3, representing scientifically based reading instruction, was implemented with more regularity in comparison to the other sections.

Figure 9

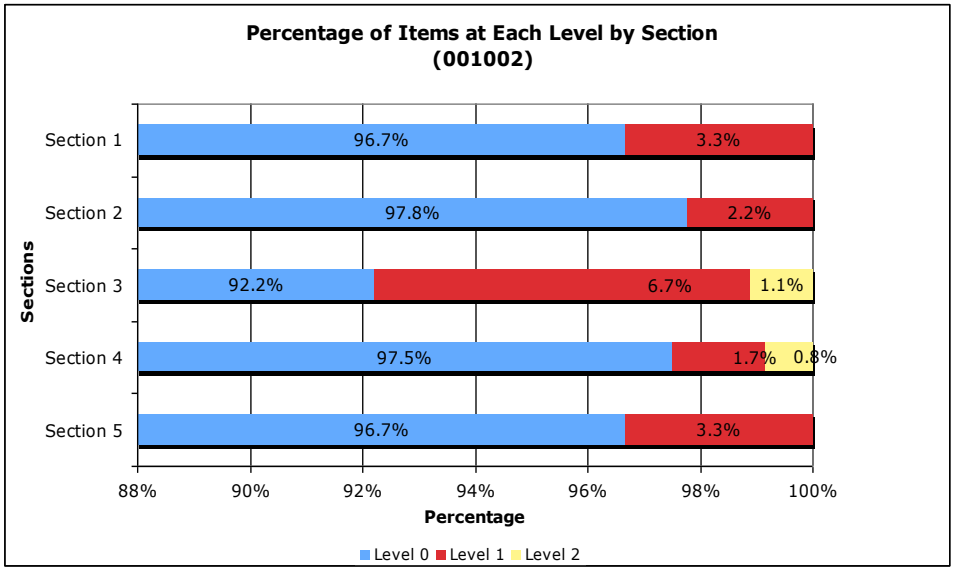
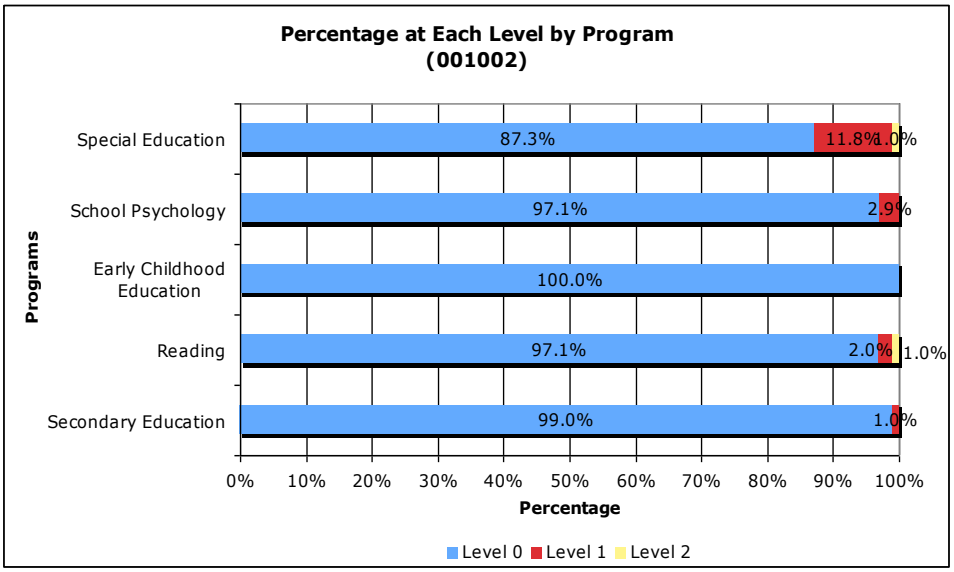


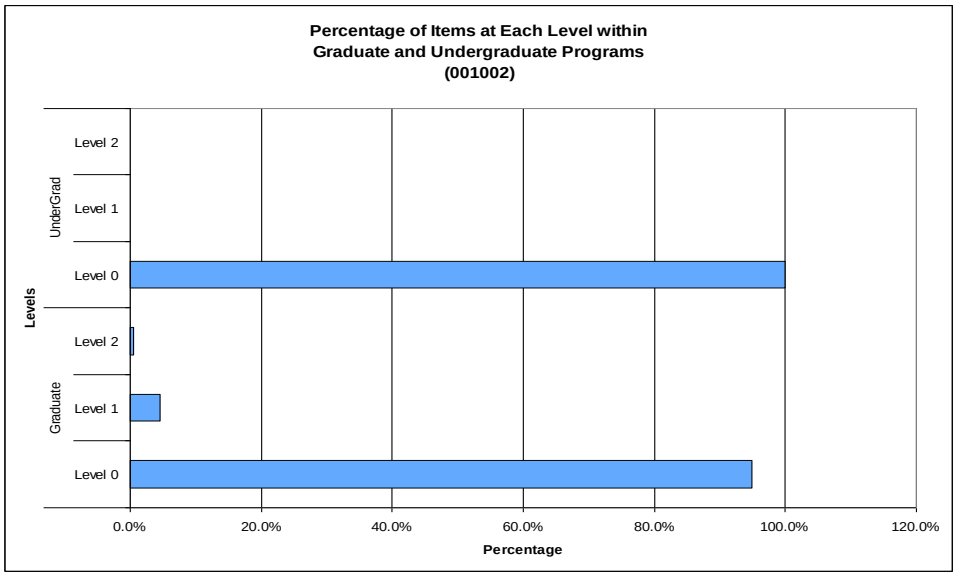
Figure 10 highlights the implementation level by type of program. Most programs were not implementing the topics from the IHE Checklist within their courses.

Figure 10



IHE 001002 also submitted graduate and undergraduate syllabi. The graph in Figure 12 below shows the percentage of items at each level between these two groups. At the undergraduate level these topics were not mentioned in the syllabi provided and were rarely included at the graduate level.

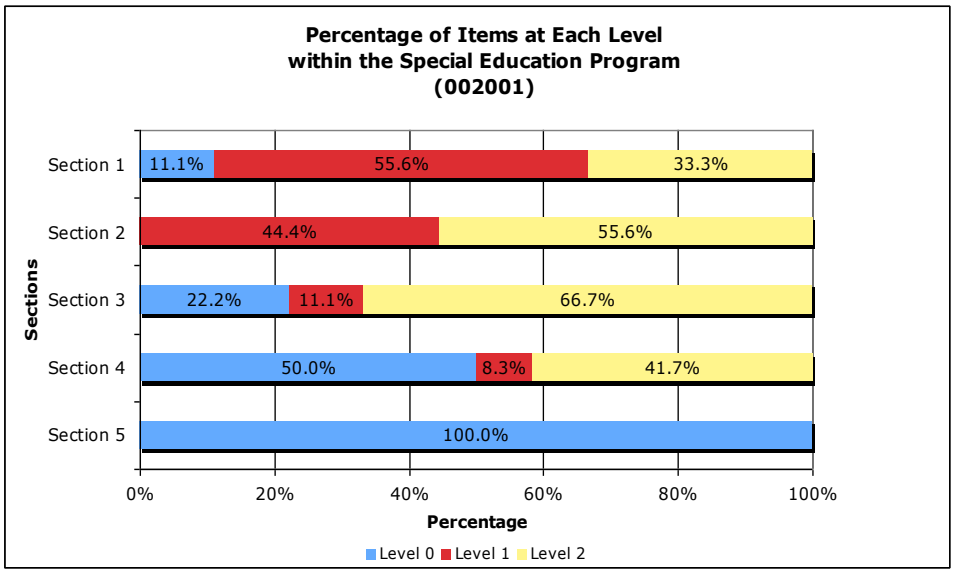
Figure 12



University 002001.

IHE 002001 submitted three special education syllabi. Overall, 37.3% of components of RtI were rated at Level 2, 21.6% were rated at Level 1, and 41.1% of items were not evident in the sample. Figure 13 displays the breakdown of the levels within each section of the IHE Checklist. According to the data provided, all components of universal screening and problem identification were evident in the syllabi, but no components of effective problem solving teams were evident.

Figure 13



University 003001.

IHE 003001 returned 12 syllabi, three from each type of course. Overall, 64.3% of components were rated at Level 0, 10.4% were rated at Level 1, and 25.3% at Level 2. The breakdown of ratings within the five sections in the IHE Checklist are displayed in Figure 14. Over half of the items referring to three-tiered problem solving and RtI were rated at least a Level 1, meaning that many of the syllabi showed some evidence of these topics in courses at IHE 003001.

Figure 14

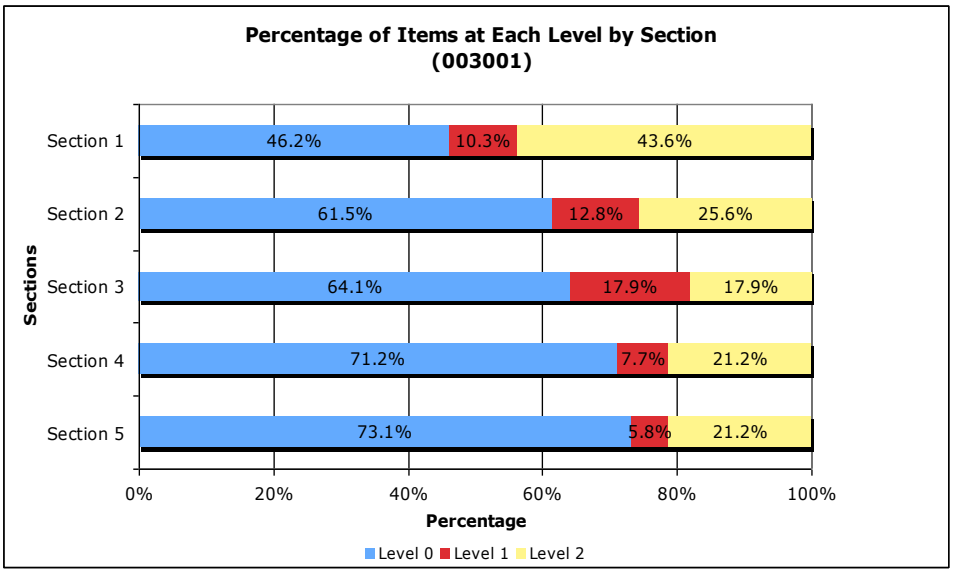
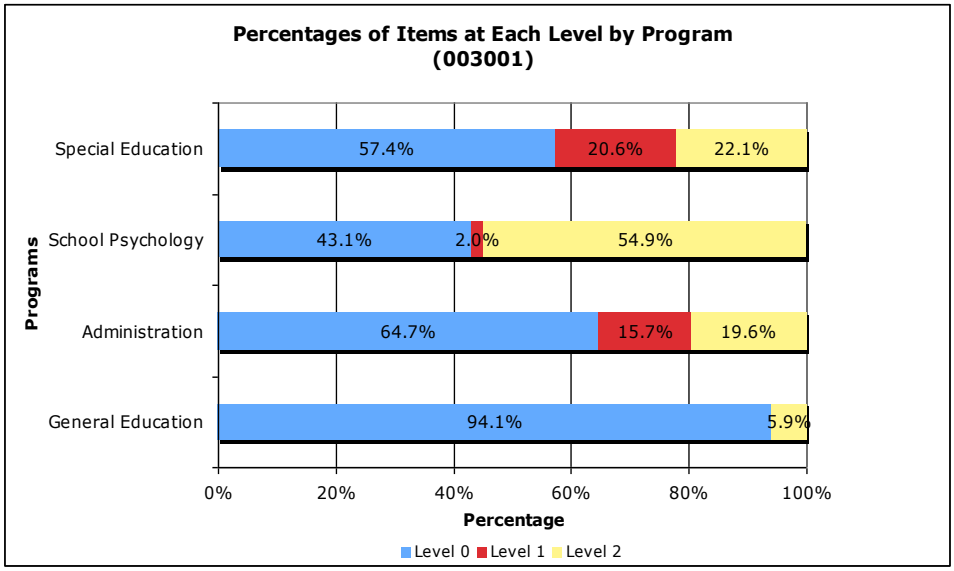


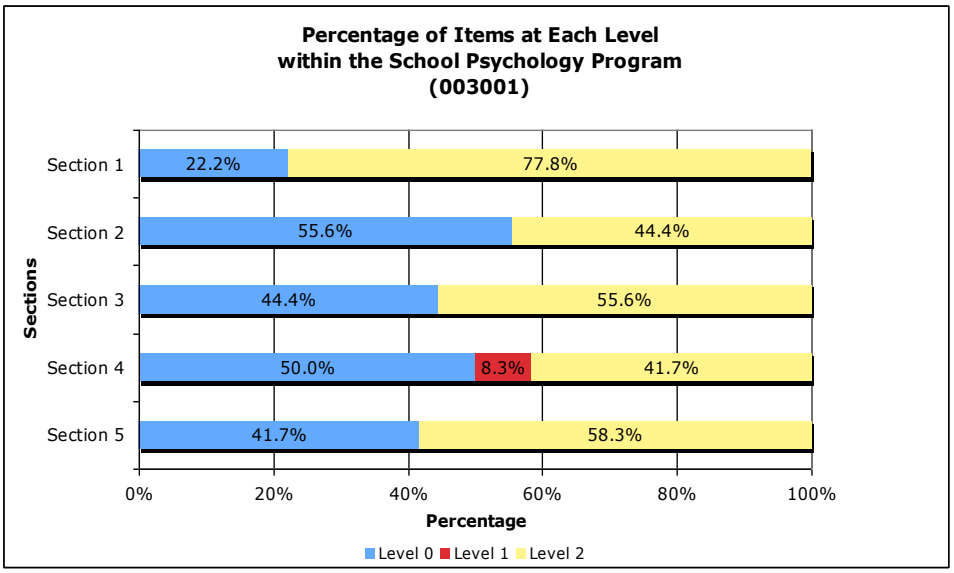
Figure 15 compares the different types of syllabi IHE 003001 submitted. School psychology courses included these topics at a higher rate than any other type of course, with over half of the items rated at Level 2.

Figure 15



Again, the program that stands out at IHE 003001 is the school psychology program. As shown in Figure 16, all components of RtI were evident in the three syllabi submitted.

Figure 16



University 004001.

IHE 004001 submitted seven syllabi, covering three different course areas. Figure 17 illustrates the breakdown of ratings within the five sections in the IHE Checklist. At least 40.5% of items were rated at Level 0, 37.5% at Level 1, and 17.7% at Level 2. All sections of the IHE Checklist had some level of evidence of being included within IHE 004001 syllabi.

Figure 17

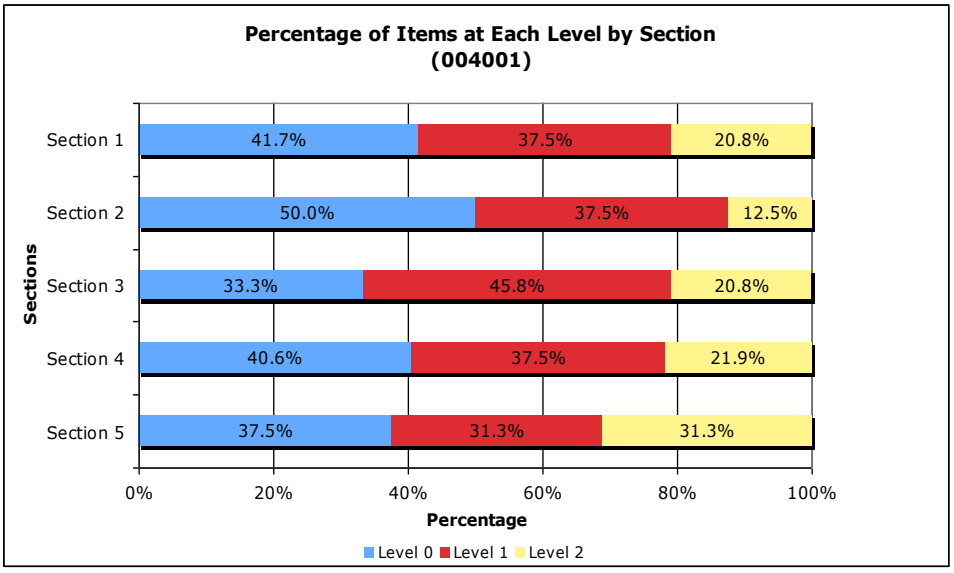
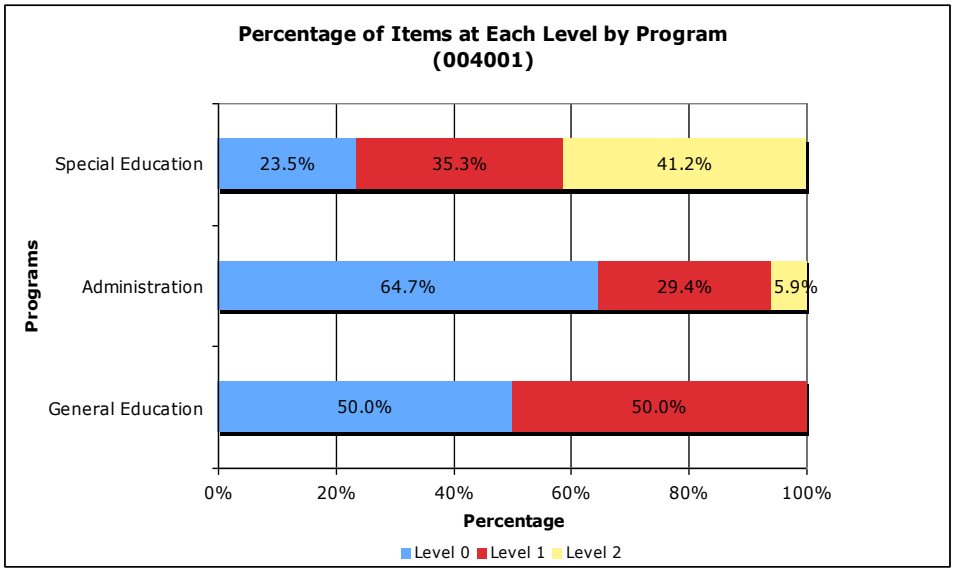


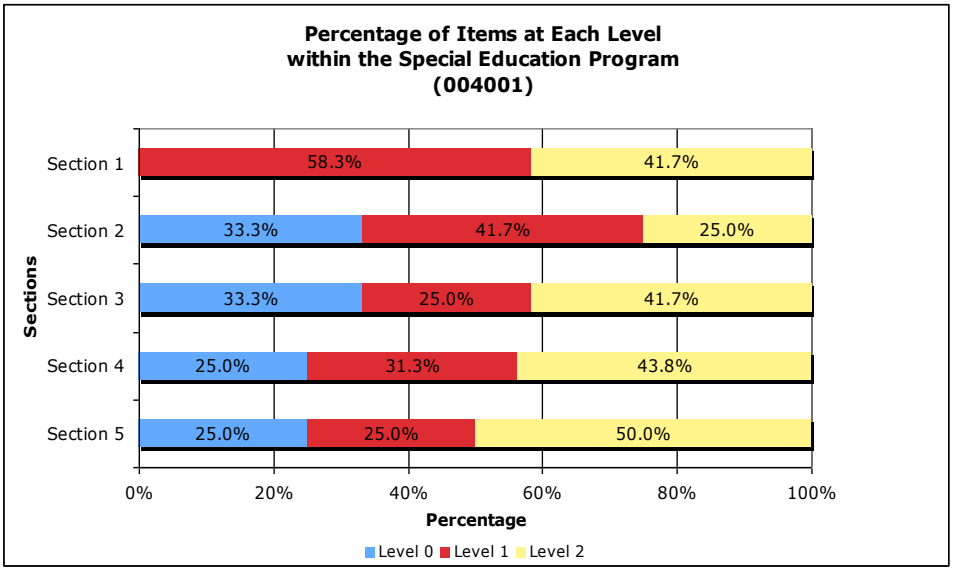
Figure 18 divides IHE 004001 data by type of course offered and level of implementation per group. According to these data, the IHE Checklist components were present in 50% of the general education courses reviewed.

Figure 18



According to the data depicted in Figure 18 above, special education courses included the IHE Checklist content at a higher level than other courses at IHE 004001. Figure 19 displays data from the special education program. Three syllabi were submitted for review. All components of the IHE Checklist were evident in the syllabi, to some degree.

Figure 19



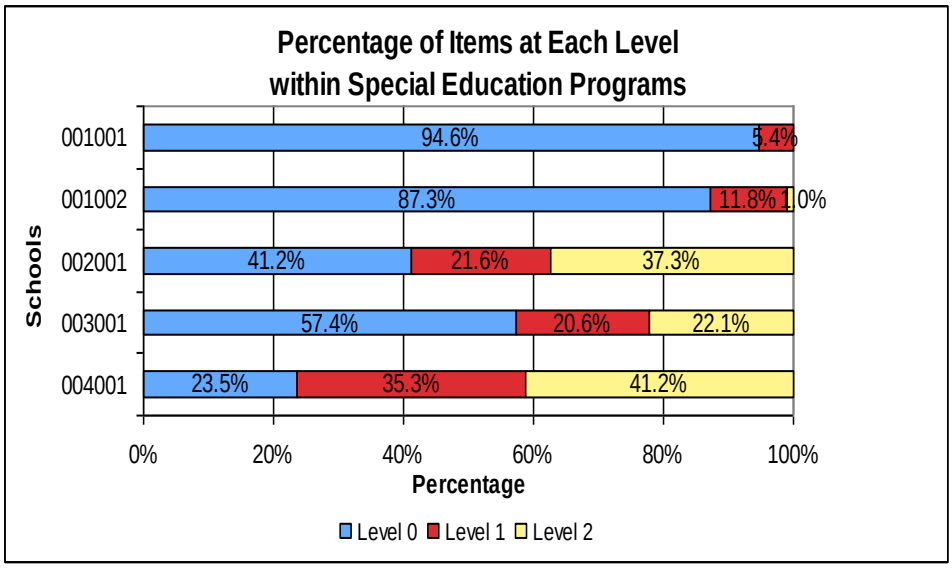
Comparisons Across Universities

The following section provides a comparison of integration of RtI for program areas across the universities.

Special education courses.

All schools submitted syllabi for special education classes. Figure 20 illustrates the percentage of items at each level for the five IHEs within their special education classes. IHE 004001 implemented the five components of the IHE Checklist within the curricula at a greater rate than other IHEs, with the highest percentage of Level 1 rankings (35.3%) and Level 2 rankings (41.2%).

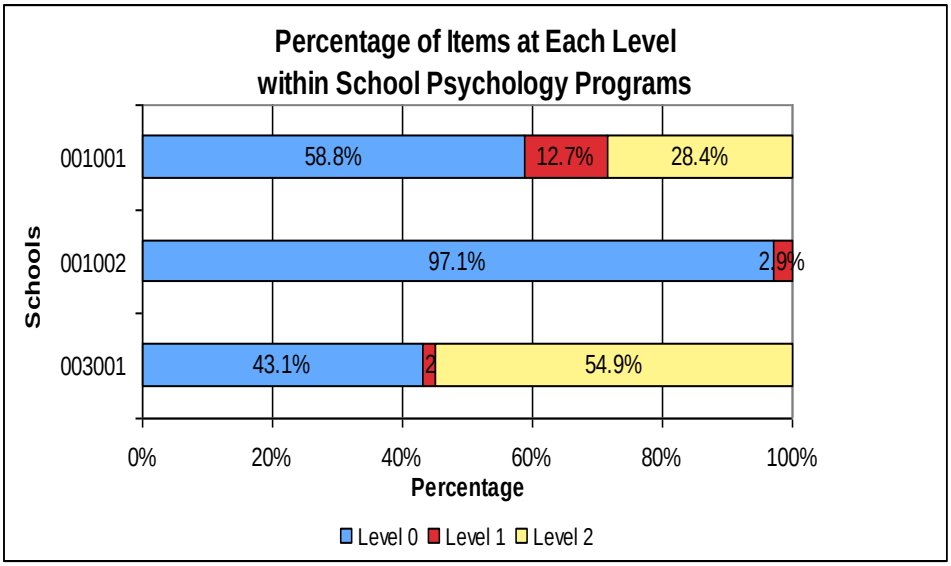
Figure 20



School psychology courses.

IHEs 001001, 001002, and 003001 submitted syllabi for school psychology. Figure 21 illustrates the percentage of items at each level for the three IHEs submitting school psychology course syllabi. Both IHE 001001 and IHE 003001 demonstrated higher levels of implementation within their programs.

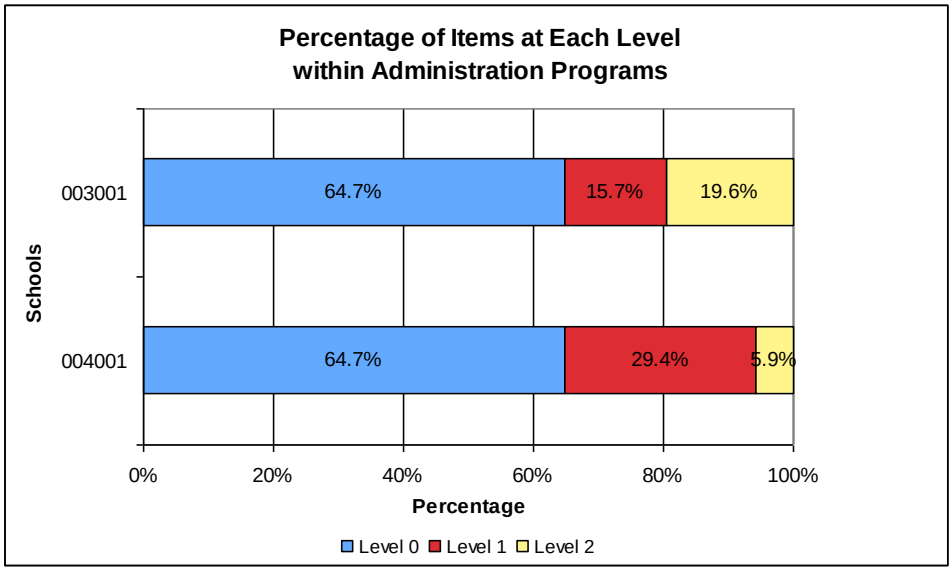
Figure 21



Administration courses.

IHE 003001 and IHE 004001 submitted administration syllabi for review. As shown in Figure 22, 64.7% of items were not mentioned or applied in courses. However, both universities did provide some examples of training on IHE Checklist concepts to some degree.

Figure 22

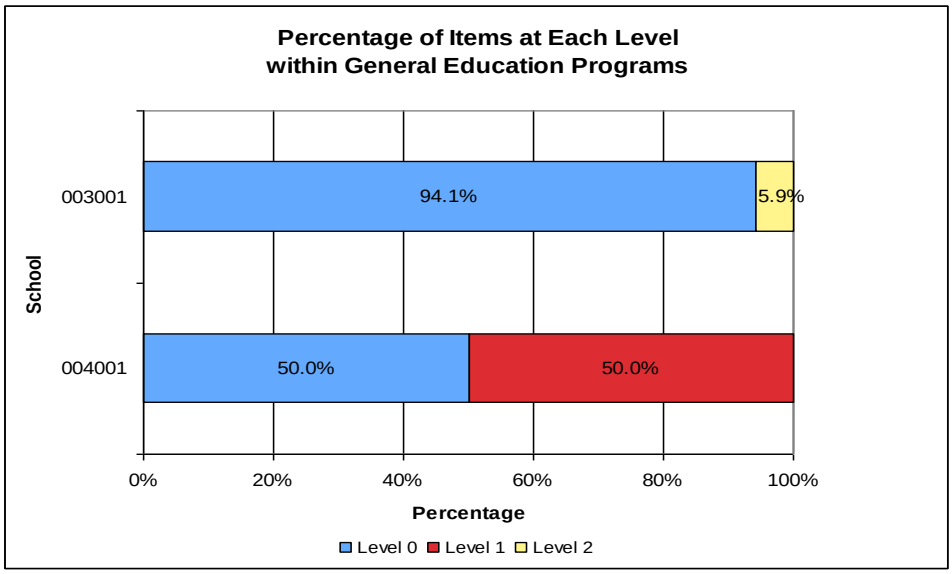


General education courses.

Both IHE 003001 and IHE 004001 submitted syllabi from their general education curricula for review. As Figure 23 illustrates, results from the IHE Checklist demonstrated that IHE 003001 did not implement many of the components of RtI in its general education courses.

IHE 004001 included half of the IHE Checklist components but did not include any assignments, readings, or projects that focused on these topics.

Figure 23



Both IHE 001002 and IHE 001001 provided additional IHE data beyond the data requested for this study. Below is a brief discussion of these data.

Early childhood education.

Syllabi were returned from early childhood education courses at IHE 002001 and IHE 001001, but all entries had ratings of zero, implying that problem-solving, RtI, and early intervening services content were not covered in these courses.

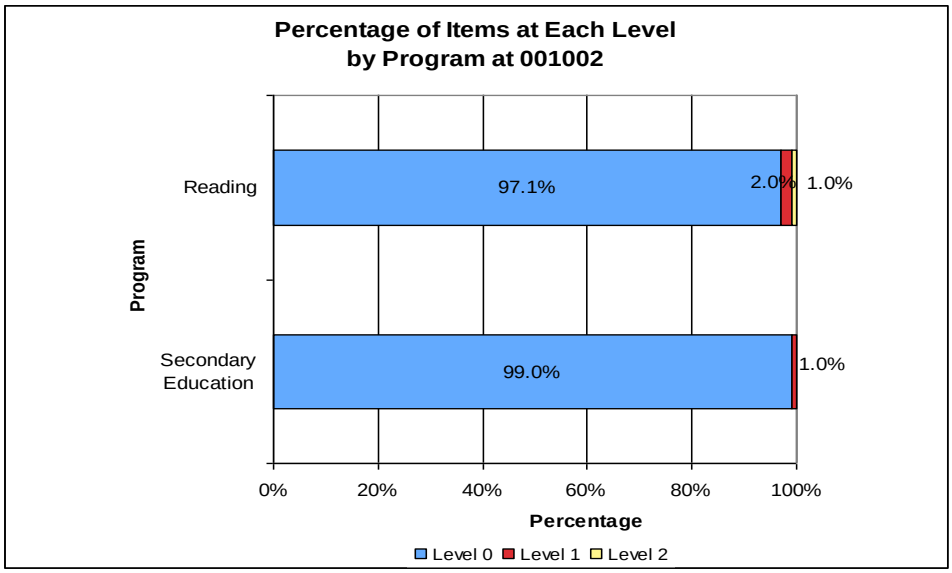
Elementary education.

Syllabi were returned from elementary education courses at IHE 001001, but all entries were ratings of zero, implying that problem solving, RtI, and early intervening services content were not covered in these courses.

Reading and secondary education.

Syllabi in reading and secondary education courses were submitted by IHE 001002. The results for these are presented in Figure 24 below. The level ratings demonstrate that the content of these courses mention problem solving, RtI, and early intervening services on a limited basis.

Figure 24



Interview Results

The following section provides information regarding the qualitative information from this study. Qualitative data were only returned by two regions. Table 4 displays data from the schools and programs that provided interview data. A review of the qualitative data resulted in the identification of categories into which IHE programs reviewed in this study fell, as discussed below.

Table 4. ***Universities that Reported Qualitative Data, by Department***

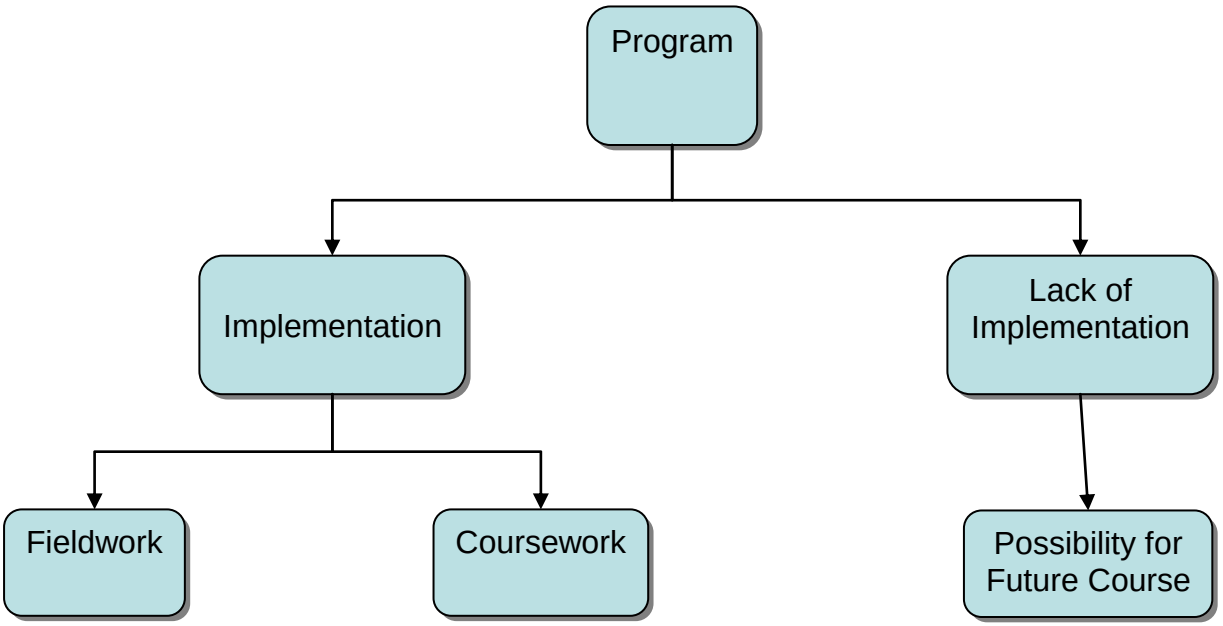
IHE	**Programs**
003001	Administration
	General Education
	School Psychology
	Special Education
004001	Administration
	General Education
	Special Education

Program categories.

As shown in Figure 1 (below), the IHE programs reviewed in this study fell into two main categories: Those that were implementing RtI topics within syllabi and those that were not. When inclusion of the IHE Checklist components was evident, their presence was prevalent in the coursework and field experiences associated with courses. The reviewer of the school psychology program syllabi at IHE 003001 stated, "Systematic efforts have been made by the school psychology faculty to integrate [RtI content] into their specialist and doctoral programs that prepare school psychologists for work in the schools to include knowledge and skill

development in all of the areas outlined above," referring to the topics of the IHE Checklist. The reviewer of the general education program at IHE 003001, when referring to the topics in the checklist, stated, "No one was familiar with the Response to Intervention initiative in Illinois, nor the concepts/skills outlined above." These statements showcased the differences found in programs within the same IHE with regard to RtI.

Figure 1. Program Implementation Categories



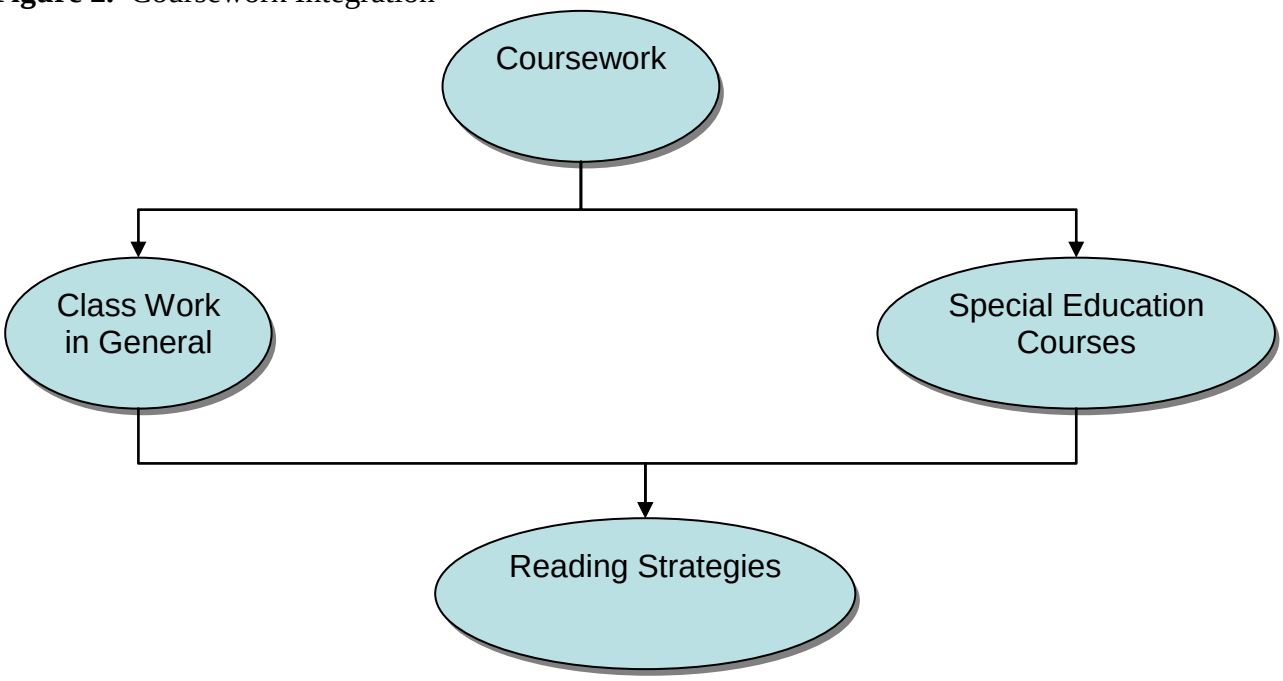
Programs that implemented RtI.

In those programs integrating RtI topics into syllabi, interviews focused on how these topics were implemented, as opposed to what topics were being implemented. Figure 1 (above) shows that if programs were implementing RtI topics, they typically did so through coursework and fieldwork.

Coursework.

A common theme of coursework emerged from the interviews, in that interviewees felt students were learning about RtI-related topics in specific classes. Figure 2 (below) illustrates where these topics were integrated into coursework. The interviewee in the special education program at IHE 003001 stated that some topics are "stressed throughout formal coursework."

Figure 2. Coursework Integration



As shown in Figure 2 (above), within coursework, two trends emerged: class work and specific special education courses focused on RtI topics. Within the classroom, RtI topics appeared in lecture, class discussion, and class simulations. The interviewee indicated that at IHE 004001, "Special education students receive a strong orientation to the three-tiered problem solving process" in class. The interviewee at IHE 003001 indicated, "Students complete a case involving reading in the clinic-based Academic Intervention and Consultation Service. As part of this case, students are required to implement scientifically based reading instruction…[and] make instructional decisions based on…scientifically based progress monitoring." The interviewee from the special education program at IHE 003001 indicated, "Students [were] exposed in coursework… [with specific assignments] to curriculum based measurement and progress monitoring." In the Administrative program at IHE 004001 the interviewee stated, "Team building and problem solving are strong components of the leadership curriculum." These examples may support the idea that programs were implementing curricula that expected students to demonstrate an understanding of some RtI topics at some levels.

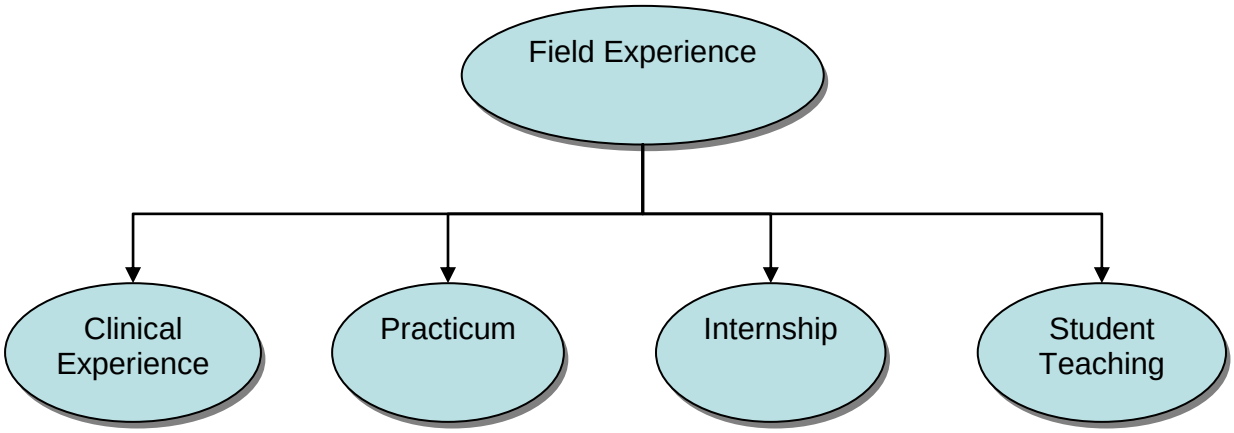
For both IHEs, interviews pointed to specific special education courses that focused on RtI topics. At IHE 004001, the reviewer stated that a specific special education course offered students a "very comprehensive curriculum for student behavior management; many of the components are directly allied to the RtI model." The interviewee at IHE 004001 also said, "special education students receive a strong orientation to the three-tiered problem solving process." In the school psychology program at IHE 003001, "all specialist degree students also enroll in a special education class, Teaching Diverse Learners…that includes readings on scientifically based reading instruction." Overall responses indicate that special education courses focus on RtI topics more often than other courses.

The topic of reading strategies emerged as a subcategory of both class work and special education courses. This thread ran through some of the interviews and could be seen mainly in responses to Question 3, which asked the interviewee about scientifically based reading strategies. According to the interviewee from the general education program at IHE 004001, "Students receive a strong overview of the big five ideas in reading." For IHE 003001, the interviewee stated that two "courses address some scientifically based reading instruction … but also a whole language approach." When the interviewees mentioned interventions as part of their coursework, they only discussed reading strategies (e.g., special education coursework). Interviewees did not discuss in great detail other types of interventions that were part of these courses (e.g., math-related interventions).

Field experience.

Throughout the interviews, the most common theme that appeared was that of field experience. Figure 3 (below) shows four mechanisms through which field experience occurred: clinical experience, practicum, internship, and student teaching. According to the interviewee in the school psychology program at IHE 003001, "All students participate in a first year field experience in a school that is implementing Response to Intervention."

Figure 3. Field Experience Mechanisms



The theme of reliance on fieldwork appeared in similar contexts across various programs. In the interview from the Special Education program at IHE 003001, the interviewee stated, "[The] department's conception of [a] special educator is that of a collaborator, so value of collaboration and problem solving is stressed throughout formal coursework and in clinical experiences, including full year field experience prior to student teaching. Students also get exposure to this knowledge and skills through student teaching." When answering Question 5, the interviewee stated that problem solving topics were "not emphasized as much in coursework as in field based experiences." In the General Education program at IHE 003001, the interviewee's response to all questions was, "It is my assumption that students are exposed to these concepts and skills as part of their student teaching in public school districts around the state." This theme (reliance upon field experiences for RtI content) ran through many of the

interviews. At IHE 004001, the interviewee in the special education program mentioned that implementing scientifically based progress monitoring occurred in "applications in clinical experiences." Overall, in terms of preparing students to implement RtI, some form of field experience was a part of many of the programs.

Programs that lacked implementation.

Although the interviews suggested that schools were implementing the IHE Checklist content to some extent, not all programs were familiar with the concepts on the checklist. In reviewing the syllabi at IHE 003001, the reviewer noted, "No one was familiar with the Response to Intervention initiative in Illinois[,] nor the concepts/skills outlined above. It was challenging to complete this survey without input from the typical faculty contacts found in other departments." This lack of implementation also could be seen at IHE 004001, where the interviewee in the general education program stated, "For the most part, RtI is briefly mentioned in course[work]. Little or no application is provided."

An opportunity presented by this lack of implementation was the possibility of implementation in future courses. In the general education program at IHE 004001, the interviewee stated, "This will be a topic of discussion in the fall of [20]09 among department heads." This idea of future implementation could be seen at IHE 004001 as well. The reviewer noted that a course will be taught in the spring of 2010 and stated, "That course is currently being revised to incorporate a greater emphasis on administering special education and RtI programs."

Discussion and Recommendations

The data presented in this report represent a small sample of higher education courses offered in the state of Illinois. Generalization of these findings should be cautioned due to the use of convenience sampling, as applied in this study. However, this report may be useful for the reader in terms of issues that transfer to his or her own settings. Overall, the data seem to suggest that these universities were beginning to include RtI topics in their curricula. This process began in special education and school psychology programs, as illustrated in the IHE Checklist data. These topics then appeared to filter into other programs, such as general education (Hawkins, Kroeger, Musti-Rao, Barnett, & Ward, 2008). The recommendations below could help higher education programs as they integrate RtI topics into their curricula. Recommendations for university-based preparation programs that address RtI include:

a) Addressing competency in essential RtI elements beyond a basic overview.
b) Continuing an emphasis on field experience that is both collaborative and reflective in nature.
c) Providing a solid foundation in educational research and its role in instructional planning.
d) Expanding the inclusion of RtI content beyond special education, field experiences, and reading courses to address other content areas (e.g., general education, administration, math instruction).

The first recommendation refers to the topics to which education professionals should be introduced in their training. Some of the data collected for this report suggested that preparation programs relied solely on student teaching or field experiences to teach future educators RtI topics. Because teachers are a vital component of RtI implementation, they should possess the skills needed to use interventions in the classroom, beyond those addressed in special education coursework or practicum related experiences. Also, these pre-service candidates should develop these skills prior to student teaching. According to Reschly and Wood-Garnett (2009), the specific skills and knowledge future educators need include:

- Positive attitudes toward the RtI process,
- A strong knowledge base in both content-oriented skills and RtI topics,
- An ability to design classroom organization and behavior management plans that are appropriate for students, and
- Competency in problem solving skills associated with RtI.

When IHEs implement these topics within their educational curricula, they can increase the likelihood that educators will leave university classrooms ready to implement RtI practices in schools.

As evidenced by the interview responses, learning about RtI in higher education classrooms is necessary, but not sufficient. A positive theme of field experience emerged in the interview data and was the basis for the second recommendation. Prior RtI research supports the use of field experience within university curricula while expanding upon it. Educators should be exposed to structured field experiences that prepare them for the challenges they will encounter in education (Hawkins et al., 2008). Higher education programs should stress evidenced-based theories that allow students to practice the application of research to guide decisions (e.g., selecting strategies). This should be supported with constructive feedback from educators in the field (Keener & Bargerhuff, 2006).

A critical element of field experience is the use of a collaborative problem solving process to meet the needs of each student (Allen & Blackston, 2003). By adding data-driven decision making to their own work, professionals gain a deeper understanding of how students learn by connecting research with practice. There are many challenges in pre-service field experiences involving RtI, including allowing time for teacher reflection to facilitate teaching (Hawkins et al., 2008). The use of collaboration and reflection using data in field experiences may address some of these concerns.

The third recommendation points to a research-oriented aspect of RtI. Pre-service educators should know that the field of education is grounded in research on learning and this research can help educators make informed decisions in regard to instructional practice (Greenwood & Maheady, 2001). Part of their professional preparation should include demonstrating an understanding of different types of educational research and using such research in the classroom. Future educators would benefit from developing and implementing data collection measures (Reschly & Wood-Garnett, 2009). Professionals should be prepared to use research to make changes to instructional practices when students are not progressing. This

skill is critical in the field of education and, as a result, should be part of higher education programs (Hawkins et al., 2008).

In terms of the last recommendation, schools require skilled professionals. Universities have the potential to offer support to schools by educating teachers who know how to effectively meet the needs of the students they serve (Hawkins et al, 2008). In doing so, the partnership between universities and schools will be strengthened (Keener & Bargerhuff, 2006). The universities participating in the IHE Checklist were in the process of introducing RtI topics into the higher education curricula by reflecting on their own data.

The recommendations discussed above provide potential future steps for strengthening the skills of educational professionals to bridge the gap between research, instruction, and student performance.

Limitations

This report provides descriptive and qualitative information regarding the IHEs that were included in this study. While perhaps compelling, this report does not assume to reflect the state of the integration of RtI content for all IHEs in the State of Illinois. Further, only two universities provided qualitative information. The level of potential transferability for these data is based in the level of similarity these schools and departments may share with other universities in the State of Illinois. Caution should be used when interpreting these data beyond simple recommendations and considerations for program integration.

Conclusion

With these limitations in mind, it is the hope of the authors of this report that the data, interpretations, and recommendations contained herein may inform university programs regarding the nuances of integrating RtI into academic programs. Certainly, additional research is needed that could inform the field regarding the integration of RtI into IHE programs. Hopefully, these studies would address the current limitations for this study in terms of the number of participating schools and the documentation of qualitative information.

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