The TAP IT Approach

DATA—*Informed Decision Making*

What's Inside

Using Early Warning Systems with the **TAP IT** Approach

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Educators are more likely to use information when it is timely, easy to interpret, and answers the questions they want answered. Longitudinal data systems and data warehouses offer countless ways to organize data into usable and easy-to-understand reports.

It's one thing to look at longitudinal data reports to find the number of students in a particular school or grade who may be at risk for academic failure. But, what if you also could receive alerts or early warnings whenever key indicators occur that are associated with individual students' risk potential? Such knowledge might enable you to intervene quickly to help those students get back on track.

A relatively new type of diagnostic report—the early warning report—shows promise in helping educators use data to identify struggling students and to provide alerts when any of those students show increased vulnerability. The use of early warning reports is an integral part of the **TAP IT** approach to data-informed decision making, developed by the Boundless Learning program at Johns Hopkins University's Center for Technology in Education. The **TAP IT** approach helps educators improve results for students, including students with disabilities, who are struggling academically and/or behaviorally (Stein & Mainzer, 2013). Read on to learn more about early warning reports and how they are used in the **TAP IT** approach.

Understanding Early Warning Systems: A Brief Overview

Early warning systems identify students who need immediate support and/or intervention. The reports frome such systems are designed to identify students who display certain risk factors and to flag them whenever a risk factor meets a certain threshold (e.g., number of absences). To this end, the reports organize and showcase data that have been collected on key indicators—or risk factors—to help educators make meaning of the data. Typically, indicators are selected for practical value (e.g., reading and math achievement, elimination of achievement gap, student completion of a course of study, student engagement with school, etc.) and reflect specific risk factors that, according to research, are strong predictors of certain outcomes that are to be avoided (e.g., dropping out of school, not being on track to graduate in four years, etc.).

Although there may be similarities, districts may vary in their choice of indicators used in early warning reports. For example:

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- To identify students who are at risk for not graduating on time, Louisiana set up its early warning system to look at attendance, behavior, and course passing. Time also was factored in by giving special attention to the first 30 days of school. Students with significant absences, whose grades drop .5 percent, and/or who receive Ds during this time are flagged. Real-time reports allow educators to see which students have moved into at-risk status and to track the effectiveness of interventions.
- To identify students who are struggling, a school district in Texas looks at all students' attendance rates, learning data, disability status, office referrals, and suspensions to identify trends. Reports are created that sort the findings by student groups, grade levels, and campuses.
- To identify ninth grade students who are at risk for not graduating, an Indiana school district looks at retention data, grades in English and math for seventh and eighth grades, whether students attended two or more schools during a previous year, whether students have less than 95% attendance, and the number of unexcused absences. Reports identify students by assigning them a low, medium, or high risk factor.

Data do not provide solutions to identified problems. Rather, they can provide information educators can use to inform decisions about how to take action (e.g., developing short-term strategies to assist individual students, crafting long-term strategies to reduce the number of at-risk students, etc.).

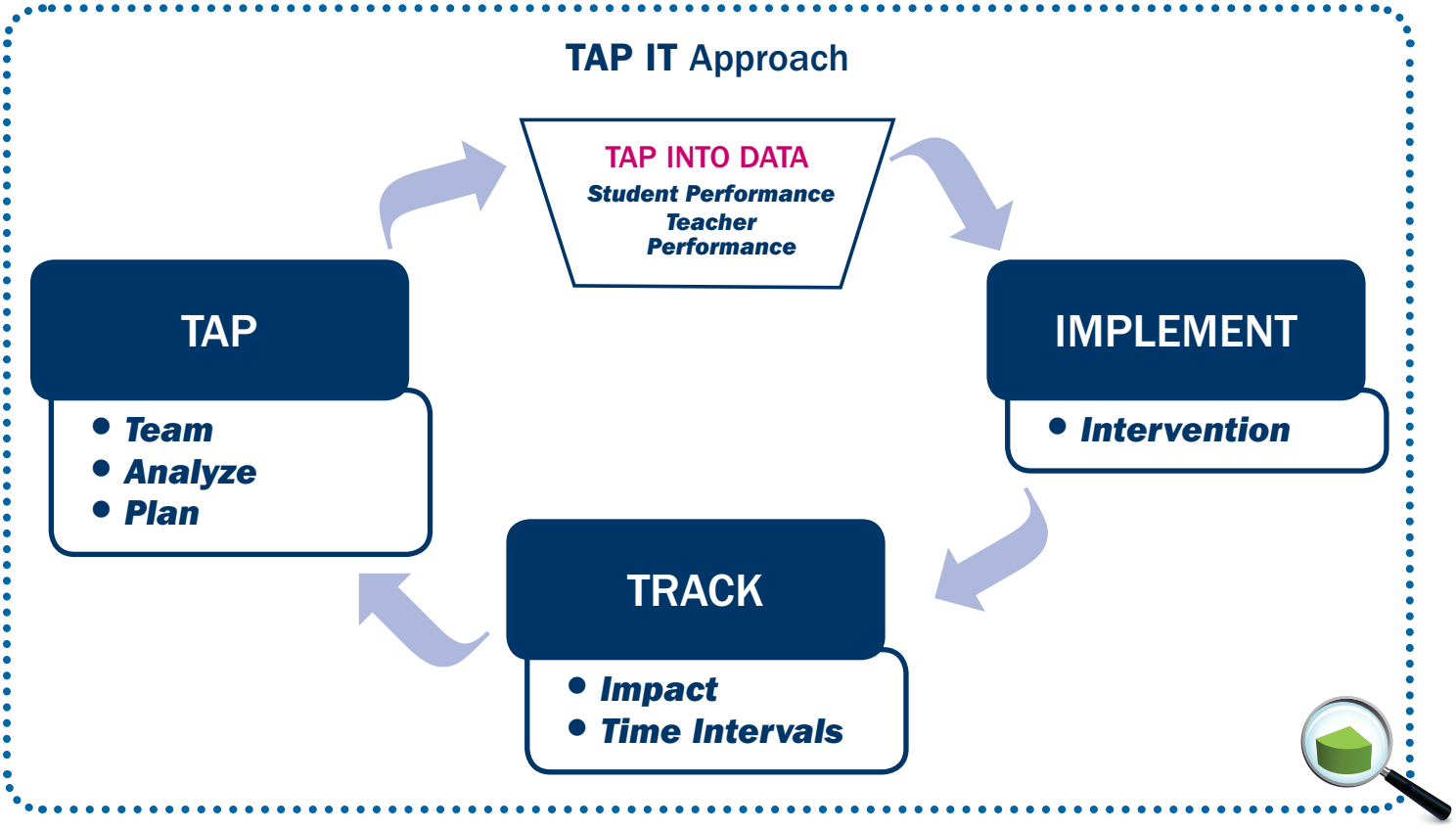
*Using **TAP IT** with Early Alert Systems*

The first step in designing an early alert system is to identify the outcome that is to be avoided—such as dropping out of school—and the associated risk factors that are the strongest predictors for that outcome. The accuracy of dropout predictions increases when combinations of multiple risk factors are considered. Longitudinal early warning systems offer a promising way to use multiple data sources to track students who are in danger of dropping out so that personalized interventions can be made quickly.

An example of such a system is the Maryland IDEA Scorecard—pioneered by the Johns Hopkins University Center for Technology in Education in collaboration with the Maryland State Department of Education. Let's take a look at how **TAP IT** embeds the use of the Maryland IDEA Scorecard.

Team: The team performs a number of actions related to the team's inner workings (e.g., select and confirm members, set a meeting schedule, identify goals, identify sources of relevant data, etc.).

Analyze: The team uses the Early Warning Alert Reports to identify students. In most cases, the school leadership team—comprised of administrators, specialists, teachers, data experts, etc.—assumes responsibility for analyzing data and developing individualized dropout intervention plans. Team members begin the process by reviewing the student data reports in the Maryland IDEA Scorecard Early Warning Alert



Examining Data Using Threshold Questions

Student Mobility

Threshold question: Did the student attend two different schools or more in the same school year? Is mobility an alert area for this student? If mobility is an alert area, use the data to answer these questions:

- Did the change occur within the same district? At what grade level?
- Did the change occur across districts? At what grade level?
- What skill or content might the student have missed due to the move?
- Did the student reach proficiency on the state assessments? Did the student's proficiency level change during this transition?
- Has there been an increase in suspensions since the change in schools?
- Has there been a decrease in attendance since the change in schools?
- Did the mobility impact the student's academic progress?

Attendance

Threshold question: Did the student attend school less than 80 percent of the time? Is attendance an alert area for this student? If attendance is an alert area, use the data to answer these questions:

- Is there a downward trend in the student's attendance over the last three school years?
- Is there an upward trend in the student's attendance over the last three school years?
- Was there a decrease in the student's assessment scores?
- What was the impact on the student's academic progress?

Discipline

Threshold question: Was the student suspended for 10 or more days during the school year? Is discipline an alert area for this student? If discipline is an alert area, use the data to answer these questions:

- Was the suspension for a single day or multiple days?
- What is the student's suspension history during the last three years?
- Has the student had a behavioral assessment?
- Does the student have a behavioral intervention support plan?
- Was there a decrease in the student's assessment scores?
- Was there an impact on the student's academic progress?

Academics

Threshold question: Were the student's assessment scores in the basic range for the last two years? Is academics an alert area for this student? If academics is an alert area, use the data to answer these questions:

- Has there been a change in the student's assessment history during the last three to five years?
- What are the student's grades in English? What are the student's grades in math?
- Are the student's teachers highly qualified in the tested areas?
- What percent of the student's classes are heterogeneous?
- What is the teacher/student ratio in the student's classes? What percent of the student's classes is co-taught?
- What is the amount of time scheduled for specific content areas?
- Was there an impact on the student's academic progress?

System. These reports show, among other things, longitudinal student data on four key factors related to dropping out:

- Student mobility (attendance at two or more schools in the same year).
- Attendance (poor attendance, defined as below 80% in a given year).
- Discipline (student is suspended 10 or more days during a school year).
- Academics (student scores at the basic level for two or more years).

The reports provide a list of students who have been identified in one or more of the four identified alert areas. Team members review data in these reports—as well as current local student data such as benchmark tests or other formative assessments administered by the school or school system and current attendance, enrollment, and behavior data—to gain an overall understanding of the risk factors and to identify students whom they wish to target for ongoing study.

Once students are identified, team members use the *Maryland Scorecard Guide to Decision Making Procedural Facilitator*. This tool provides team members with a systematic process for analyzing individual longitudinal data, examining relationships between the four alert areas, and assigning interventions to personalize student learning and advance performance.

Asking the right questions can uncover trends in student achievement and behavior and often can reveal how a student's unique circumstances may be contributing to these trends. To this end, team members respond to a series of threshold questions posed by the procedural facilitator for each identified student (see the text box, Examining Data Using Threshold Questions, for examples). Answers to these

questions help team members decide if the particular alert area is relevant to the individual student. Follow-up questions are posed that require team members to look more deeply into the data. The list of questions is not exhaustive; rather, it provides a starting point for determining each student's individual needs.

Plan: After addressing each discussion prompt, team members review suggested evidence-based interventions. The selected interventions are personalized for the student, based on his or her targeted area(s) of need.

Team members make an intervention plan for identified students. They begin by answering general intervention questions. If the student has had a previous intervention, they answer the following questions:

- What intervention was the student assigned previously?
- Was the intervention provided in a pull-out setting?
- Was the intervention provided as part of the student's schedule?
- What impact did the intervention have?

If the student has not had a previous intervention, team members answer the following questions:

- Are teachers using instructional strategies and/or programs that meet the learning needs of this student?
- How did this student's performance compare to the performance of a reference group?
- Does the student need additional assessment?
- Does the student need year-round consideration?

Once team members have analyzed all data, they identify an intervention to meet the needs of the student and develop

*"The foundation for the **TAP IT** approach is built on a strong literature base that reflects effective elements and processes that can help guide educators in using longitudinal data to inform decision making"*

—Mainzer & Stein, 2013

Scorecard enables you to use multiple data sources to make effective decisions on student progress.

an implementation plan. The implementation plan consists of the targeted goal, the formative assessment data that will be collected, and the person assigned to collect the data.

Implement: The intervention is implemented.

Track: Team members monitor the intervention to ensure that it is being implemented effectively. This also provides team members with the opportunity to determine whether or not the intervention is working.

As part of tracking the intervention, a team member is assigned as the intervention data monitor for each alert area. This individual is responsible for keeping track of students receiving interventions in a particular alert area, which is a key element in ensuring success. At monthly intervals—or more frequently if needed—each intervention data monitor collects data and provides a status report update to the team. The intervention data monitors watch the data for any changes in student status (e.g., a spike in absenteeism, a suspension, failing a benchmark assessment, etc.). This timely information helps team members intervene quickly and helps steer the students back on track.

References

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Stein, S., & Mainzer, K. L. (2013). *The TAP IT approach to improving results for struggling students*. Columbia, MD: Johns Hopkins University Center for Technology in Education.

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