

## **Informing Instruction and Selecting Resources**

The Classroom Excellence Initiative (CEI) program made outstanding progress providing immediate (near real time – item level) diagnostic feedback to an educator in the classroom. While this data is definitely informing instruction the data is also helping to refine the curriculum which enables educators to close the gaps in the instructional material and enhance the entire experience for subject matter experts, educators in the classroom and most importantly the students.

However, the challenge these educators still face is that even with a clear indication of which items must be addressed for any individual student the educator is still spending an enormous amount of time selecting resources to address those instructional challenges. Basic resources required to support an intervention are being searched for time and time again across multiple resource libraries while using different user interfaces.

## **Central Resource Repository**

We were very supportive of the original CEI concept to develop a central repository for intervention resources but were challenged with the long term viability of the architectural design. This design had one significant flaw which required the copying of every resource item from the original source into another centrally hosted physical repository. This approach is not practical over time since you cannot maintain the quality of the physical repository when the original records are modified at the source and have the potential not to be updated in the CEI central repository.

We must maintain the integrity of the original authoritative resource repositories and move away from copying those authoritative resources into another physical repository. These resources are either licensed with various information vendors or are unlicensed and have been developed as original works by educators at district, intermediate, state, national and international levels. We must absolutely rethink how we access all of these licensed and unlicensed resources.

## **Loss of Instructional Minutes**

We are losing direct instructional minutes that could be leveraged for one on one intervention on behalf of an individual student as a result of these extremely inefficient searching techniques that are being deployed against each individual licensed and unlicensed resource library. These instructional minutes are being invested time and time again repeating the same process in every K12 subject, classroom, building, and district for each similar resource request.

We must develop a single user interface that searches and more importantly categorizes the results of all of the licensed and unlicensed resources that you select.

## **Dynamic Resource Portal (DRP) – Proof of Concept (POC)**

3rc has designed and delivered a proof of concept (POC) Dynamic Resource Portal (DRP) solution that has been tested by several K12 local and regional educational agencies (Public and Charter).

<http://drp.3rc.org/3rc/search.html>

Our original goal was to significantly reduce the amount of indirect instructional minutes that an educator spends searching for high quality intervention support resources. We believe that the DRP solution has increased the efficiency, reduced frustration and transformed the educational search experience into one that delivers timely, categorized, and accurate results.

The educational resource architecture was designed by a DRP Advisory Committee, which was made up of technology and content resource educators from across Western Pennsylvania. They helped to identify the specific educational resources for the local (Propel Charter Schools), regional (SNAP AIU3 Digital Content), state (Pennsylvania Standards Aligned System (SAS)), national (ScienceEducation.gov), and international (OER Commons and Curriki) that we originally connected into DRP. They also supported our POC efforts with extensive user interface testing and refinements.

We continue to focus on the empowerment that emerges when you provide access to resources with a single search user interface that categorizes the collection of various resource (licensed and unlicensed) repositories without having to copy all those resources into one centralized location.

The Dynamic Resource Portal can help empower educators to leverage one user interface to minimize the amount of time they spend searching each individual resource library (licensed and unlicensed) through multiple user interfaces that in most cases did not even categorize the actual search results.

We firmly believe that with a Dynamic Resource Portal in place for K12 agencies we will shift those indirect search minutes into direct intervention on behalf of their students.

### **Future DRP Solutions Development**

The current Dynamic Resource Portal POC architecture has exceeded all of the original expectations of the original DRP design specifications. In the spring of 2010 the DRP Advisory Committee held a retreat to discuss the future direction of DRP and the ways in which it could be integrated into the current K12 environments both architecturally and culturally.

3rc was encouraged to work with the Pennsylvania Department of Education (PDE) team that was delivering the Standards Aligned System (SAS) which contains vetted educational resources that are mapped to state standards. SAS was the resource container that DRP connected to for state level resources. When 3rc met with the PDE

SAS team it was made clear that we needed to get the DRP solution to the next level of integration which would incorporate an application programmer interface (API).

With an API we could integrate into the core user interface of the SAS resources structure and provide much more value to the SAS architecture and the K12 educator. An API would also provide an easier way for licensed educational resource providers (McGraw Hill, Pearson, and Plato) to leverage the underlying DRP architecture and extend their resources into the portal with a standard connection methodology.

The DRP POC was built to meet clearly identified time and material constraints so that we could begin to test the functionality in a compressed timeframe.

The next logical step is to select a portal architecture that will allow 3rc to incorporate the personalization, customization and workflow enhancements that were defined by the DRP Advisory Committee. This portal architecture will provide a secure framework to empower users with tools such as blogs, instant emails, message boards, instant messaging, shared calendar and social networking. Social networking was the single most requested feature by the various members of the DRP advisory board. The goal of this portal architecture is to provide a rich, friendly, intuitive and collaborative user experience.

We have tentatively chosen the Liferay portal as our preferred portal architecture and will work with various standards groups to make sure that our final architectural selection does not limit the social networking requirements of the DRP Advisory group.

The portal architecture will provide a modular integration into existing K12 portal environments and the API will provide a standard communication interface for licensed educational resources.

The development of the DRP Application Programmer Interface and the transfer of the existing POC into a newly developed Liferay portal architecture is the primary focus for the next phase of DRP development.