

Professional Learning for Linked Learning Series

The District Office as a Site for Work-Based Learning

By Ann Jaquith and Jamie Johnston

About Linked Learning

Linked Learning is an instructional approach that provides students with academically challenging pathways leading to careers in high-need, high-growth occupational sectors and prepares them to succeed in postsecondary educational institutions. By design, Linked Learning pathways aspire to develop students' academic and industry-related knowledge and skills by engaging them in projects and coursework that blend career and technical education (CTE) content with a traditional core curriculum (e.g., mathematics, English, and science). To do so, Linked Learning pathways are career-themed. They offer a sequence of rigorous coursework, integrated projects, and work-based learning experiences designed to develop students' abilities to pursue careers in a field of their choosing and in postsecondary education.

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Critical to the success of Linked Learning is professional learning for pathway teachers to increase their ability to integrate career and technical education (CTE) into their core curriculum and enable students to learn content knowledge and to develop critical thinking, problem solving and communication skills. This brief addresses three critical goals that make Linked Learning pathways distinct. These are to:

1. Develop industry knowledge
2. Provide authentic work-based learning experiences
3. Integrate core and CTE subject matter

Drawing from ongoing work in California's Montebello Unified School District (MUSD), this brief describes an approach to teachers' professional learning that can develop and/or enrich the distinctive aspects of Linked Learning pathways.

Develop Industry Knowledge

All pathway teachers need to understand the specific knowledge and skills students will need to perform industry-sector jobs. Not all pathway teachers have this knowledge, nor do they always know how particular discipline content is used within an industry. District and school leaders can help core teachers better understand career-relevant knowledge and skills, and they can help CTE teachers collaborate with their colleagues. The result: stronger curricula and instruction in Linked Learning pathways.

Aware of this need for teacher learning, the MUSD Linked Learning director found a way to provide pathway teachers, many of whom had little or no field experience in their career pathway, with opportunities to participate in job shadow site visits to learn more about that particular field of work. When there were not enough local companies to host teacher teams from the district's five pathways, the MUSD Linked Learning director arranged for teams of teachers from each pathway to participate in job shadow visits in relevant district departments instead. In the words of one district administrator, "Instead of going to visit industry experts outside of the district, we brought teachers to experts within the district." For instance, teachers in the culinary and hospitality pathway visited the district's Nutrition Services Department, teachers from the design and engineering pathway visited the district's Facilities and Operations Department, and teachers from the social services pathway visited the district's Head Start Program.

Grade-level teams from each pathway visited a district department worksite. Department staff talked with teachers about the work they do, the knowledge

and skills they draw on, and the challenges they face. For example, Nutrition Services described the problem of creating healthy snacks that meet the new federal nutrition guidelines, are affordable, and appeal to students so that the food is not wasted. The Facilities Department supervisor talked about managing multiple facilities projects, each with various work streams and activities, and the need to comply with detailed and ever-changing regulations for each project. Those teaching in the engineering and design pathway said they were unaware how important organizational and leadership skills were in this field. These visits expanded teachers' understanding of relevant industry knowledge and skills.

At Head Start, teachers learned about the knowledge and skills required to conduct a family screening process, adhere to extensive and changing safety regulations, and produce detailed monthly financial reports. Time spent with the Head Start business manager prompted one teacher to comment, "Ninth graders don't know how to project ahead, and that is something they will need to learn how to do." When teachers discovered that the Head Start Program in the district serves over 700 families, one noted, "I can speak more about Head Start in my classroom; I didn't realize all the different careers in that one building." Another teacher observed, "I [found] what I was looking for after all these years—simple assignment projects." A third teacher envisioned an improved summer learning program. The teacher says "If we can offer students Excel classes, that would help [them]. Too many times, summer classes are used for making up course work. We need to think about *what more* we can offer students."

The visits exposed teachers to a variety of jobs within a sector and the related knowledge and skills that students would need to succeed in these workplaces. New ideas for approaching curriculum, instruction, and assessment were sparked, and sites for future work-based learning experiences were identified.

Provide Authentic Work-Based Learning Experiences

All students enrolled in Linked Learning pathways need opportunities to tackle real-world problems within the context of a particular industry sector and to interact meaningfully with industry professionals. Their teachers often need analogous learning experiences. But it can be difficult to locate companies with the time and capacity to consistently provide these experiences to groups of students and/or teachers on a schedule that is compatible with the school day. Additionally, designing the authentic experiences needed for optimum learning requires an investment of time most industry professionals cannot spare.

Situating students' work-based learning experiences in the district solves many of the logistic and design problems associated with these experiences. The Linked Learning director could easily arrange the teacher jobsite visits because of her relationships with district department supervisors. She also helped design the teachers' visits for optimum learning (Exhibit 1).

Exhibit 1: Linked Learning Professional Development Agenda

Pathways to College & Career Success
February Professional Development

Outcomes:
We will:

- Experience "real-world" work
- Design a project

Essential Question: How can Pathways help all students achieve the Graduate Profile?

Agenda

Teacher Externship

- Head Start (8:30–10:00)
- How can this experience inform my classroom instruction?

Performance Task

- How can I develop an authentic performance task?

Planning Time

- Incorporating today's teacher externship, how can I create a "real-world" project to be showcased at the May Exhibition?

Source: Montebello Unified School District

In advance of the visits, she educated district staff about their purpose, explaining that they were intended to provide teachers with knowledge and materials (e.g., workplace documents) about the specific workplace. Teachers could then use these to design a grade-level pathway performance task that was authentic to the workplace, grounded in actual problems and/or practices, and integrated with core subject matter.

Before the visits began, the director provided the district departments to be visited with an experience of participating in a work-based performance task. The sample task was set in an actual company that featured a real workplace problem: selecting the next client. It incorporated several industry-specific documents (e.g., company mission statement, budget, and descriptions of potential client projects) that staff members were asked to read and analyze. Based on their analysis, they then constructed an evidence-based recommendation of the client the company should work with next. The ideal client would: satisfy the company's needs to earn money, generate future clients, and stay true to the company's mission. As is often the case in real life, the best choice was ambiguous. From this simulated experience, district staff learned what teachers were trying to accomplish with their visit and the sort of information that would be useful to them. Because district staff generally do not work with high school students or know much about Linked Learning pathways, they enjoyed finding out what students were learning—which to them was “interesting and useful”—and they supplied teachers with ideas and materials from which the teachers could develop authentic performance tasks. These visits led to other learning opportunities: By situating this professional learning experience inside the district and identifying clear learning goals for the teachers, the district leveraged available expertise and resources in novel ways that enriched students' learning experiences in Linked Learning pathways.

Teacher visits to district departments provided opportunities to learn about problems and practices in industry sectors. Staff from each department told teachers about the challenges they encountered in their work that might interest students. For example, the challenge of creating cost-effective, healthy snacks that appeal to schoolchildren became the centerpiece of a project that the culinary and hospitality pathway teachers designed in conjunction with Nutrition Services. One student described the project as “the war against Pop Tarts” while outlining the focus of the project: getting healthier snacks into school and providing a tasty and healthier alternative to the Pop Tarts sold in the school vending machine. A student explained, “In science we used surveys and identified the chemicals that are in ingredients like fructose and xanthan gum; in English we wrote letters to businesses.” Culinary and hospitality teachers found the district site visit experience very beneficial.



One teacher explained that past efforts to get students involved in local businesses, particularly restaurants, had not succeeded because these businesses “have schedules that do not accommodate the school schedule or working with a large number of students.” She noted that in contrast, the district Nutrition Services staff “were easy to connect with. They listened to our needs and returned our emails. They could be more flexible, and they wanted to work with us.”

The engineering and design pathway teachers were also presented with a real world problem that piqued their interest. When these teachers assembled in the facilities and operations department, a life-size prototype of a doorway with a steel mesh door stood in the center of the conference room. It resembled the doors in the district’s schools, and the supervisor explained ADA Standards for Accessible Design required that the door could be opened with minimal force. Unfortunately, this also meant that students could easily rig the door to make its latches ineffective. The facilities staff demonstrated how a shoelace could easily be threaded through the mesh door panel and slipped around the exit bar. With a tug on the shoelace, the door could easily be opened from the outside, allowing students to let themselves into the school swimming pool when the school was not open and creating a serious liability for the district. However, both ADA and fire code regulations created barriers to designing a better door. A welding teacher in the group got quite excited about this real life design problem. He noted that the best people to solve this design problem might well be the experts at opening the locked door: the students themselves. He imagined a project in which groups of students competed with each other to develop specifications for an improved door. Design criteria would include cost, safety, accessibility, and compliance with the required building codes. Someone further suggested that students present their finished blueprints and designs to the facilities and maintenance department for review. After the

site visit, the facilities department delivered the prototype door to the CTE teacher’s classroom, an example of pathway teachers’ and the district experts’ commitment to involving students in district projects that could both improve facilities and engage the students.

Integrate Core and CTE Subject Matter

The visits generated a variety of ideas for integrating core and CTE subject matter: include mathematical modeling in the design specifications for an improved door and involve English teachers in the preparation of marketing materials to advertise a new preschool. CTE and core academic teachers need opportunities like these to imagine, design, as well as to deliver, curriculum together. They also need opportunities to jointly assess student work products so they develop a shared knowledge of student learning goals and needs. Such experiences help teachers learn from each other and provide opportunities to explicitly link disciplinary knowledge with workplace knowledge. This integration can create more meaningful and relevant learning experiences for students. The professional learning experience that MUSD organized for its pathway teacher teams also provided time for teacher teams, comprising core and CTE teachers, to co-design curriculum based on their shared experience.

As a result of the visits, teachers not only discovered real-world problems that students could address, they also learned that district staff had useful expertise in fields connected to pathway career themes. For example, district Head Start staff supported the social services pathway in setting up a temporary preschool at the high school. Students planned to hold morning and afternoon sessions for young neighborhood children, and Head Start experts helped students by reviewing their plans and demonstrating lessons. Before the pathway preschool opened its doors, teachers and students alike benefited from the infusion of

expertise that the Head Start staff brought into their classroom. Critically, they explained the safety regulations all childcare facilities must follow. One teacher explained that faculty and students learned that “a number of safety issues needed to be addressed to make sure our temporary preschool was up to code.” Pathway students described the appeal of working with people who hold jobs in the field they hope to enter. Students shared what they learned from the experience, including what types of certification and licensure were required before opening a preschool site.

Making the District Office a Site for Professional Learning Has Many Benefits

Teachers, students, and district staff all benefited from this unorthodox partnership. Teachers gained a new appreciation for the range of expertise that various occupations require and discovered a valuable resource for teaching located in the district. They also learned that numerous career opportunities for their students

were available in the school district itself. As one administrator explained, “A lot of teachers didn’t realize what the district does and that there are careers such as these in the district.” Teachers saw anew the particular value and opportunity that a Linked Learning approach to education can have for youth. Students broadened their perspectives and expanded their learning through authentic projects that responded to community needs and were made aware of career paths in their community. District staff developed relationships with the teachers and students in the district, the people on whose behalf they work but whom they rarely get to know.

Developing Linked Learning pathways in which industry-relevant knowledge and skills are woven into students’ daily learning experiences requires high school teachers to think differently about their subject matter and coursework design as well as how the district supports teachers’ learning. As the MUSD’s efforts suggest, re-imagining learning experiences for pathway teachers and using district expertise to do so, is worth the effort.

Acknowledgments

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