Introduction to the performance standards for Applied Learning

Applied Learning focuses on the capabilities people need to be productive members of society, as individuals who apply the knowledge gained in school and elsewhere to analyze problems and propose solutions, to communicate effectively and coordinate action with others, and to use the tools of the information age workplace. It connects the work students do in school with the demands of the twenty-first century workplace.

As a newer focus of study, Applied Learning does not have a distinct professional constituency producing content standards on which performance standards can be built. However, the Secretary’s Commission on Achieving Necessary Skills (SCANS) laid a foundation for the field in its report, Learning a Living: A Blueprint for High Performance (1992) which defined the concept of “Workplace Know-how.” We worked from this foundation and from comparable international work to produce our own “Framework for Applied Learning” (New Standards, 1994). That framework delineated nine areas of competence and spelled out their elements. The nine areas of competence were as follows:

- Collecting, analyzing, and organizing information;
- Communicating ideas and information;
- Planning and organizing resources;
- Working with others and in teams;
- Solving problems;
- Using mathematical ideas and techniques;
- Using technology;
- Teaching and learning on demand;
- Understanding and designing systems.

The Applied Learning performance standards have been built upon this framework. The standards have also been built on the experience of the Fort Worth Independent School District’s applied learning initiative and the application projects developed by Mountlake Terrace High School in Washington.

We adopted the approach of developing distinct standards for Applied Learning rather than weaving them through the standards for the core subject areas. The advantage of establishing distinct standards for Applied Learning is that it focuses attention on the requirements of these standards and asserts an explicit role for Applied Learning as a domain for assessment and reporting of student achievement. “Cross-curricular” standards run the risk of being absorbed and lost within the expectations of the different subjects. However, the disadvantage of this approach is that it may be interpreted as advocating the development of Applied Learning as a subject in its own right to be studied in isolation from subject content. That is not the intention of these standards. We do not advocate development of Applied Learning as a separate subject. We expect that the work students do to meet the Applied Learning performance standards will take place generally within the context of a subject or will draw on content from more than one subject area. This expectation is stated in the performance description for A1, Problem Solving.

There are five performance standards for Applied Learning:

A1 Problem Solving;
A2 Communication Tools and Techniques;
A3 Information Tools and Techniques;
A4 Learning and Self-management Tools and Techniques;
A5 Tools and Techniques for Working With Others.

A1, Problem Solving is the centerpiece of the standards. The performance description defines problem solving projects focused on productive activity and organized around three kinds of problem solving:

- Design a product, service or system in which the student identifies needs that could be met by new products, services, or systems and creates solutions for meeting them;
- Improve a System in which the student develops an understanding of the way systems of people, machines, and processes work; troubleshoots problems in their operation and devises strategies for improving their effectiveness;
- Plan and organize an event or an activity in which the student takes responsibility for all aspects of planning and organizing an event or an activity from concept to completion.

The performance description specifies the criteria for each kind of problem solving project. These criteria become progressively more demanding from elementary school to high school.

The four “tools and techniques” standards are designed to work in concert with the Problem Solving standard. Each of these standards describes tools and techniques that are needed for success in completing projects of the kinds outlined above.

The tools and techniques described in A2 - A5 (such as gathering information, conducting formal correspondence, learning from models, and taking responsibility for a component of a team project) are only meaningful when considered in the context of work that has a genuine purpose and audience. The key to effective use of these tools and techniques is the capacity to put them to use in an integrated way in the course of completing a real task. It is critical,
therefore, that they be learned and used in such contexts rather than practiced in a piecemeal way as skills for their own sake. Students are expected to demonstrate their achievement of the tools and techniques standards in the context of problem solving projects. This is reflected in the examples listed under the performance descriptions. At the same time, it is unlikely that any one project will allow students to demonstrate their achievement in relation to all of the standards. This is evident from the work samples and commentaries. In fact, it is likely that a project that attempts to cover all of the parts of the standards will accomplish none of them well.

The Applied Learning performance standards reflect the nine areas of competence defined in the “Framework for Applied Learning.” But the match is not complete. MB, MS, SS, and SS embody many of the competencies that were defined by the “Framework for Applied Learning” in “Using mathematical tools and techniques” and “Using technology.” These competencies have not been duplicated in the Applied Learning. However, the Applied Learning standards do include an explicit requirement that students use information technology to assist in gathering, organizing, and presenting information. Given the importance of ensuring all students develop the capacity to make effective use of information technology, we resolved that the overlap among the standards in this area was warranted. (See “Introduction to the performance standards for Science,” page 90, for discussion of the resource issues related to this requirement.)

Another area in which we decided that some overlap was warranted relates to A2a. The first part of this standard, which requires an oral presentation, is similar to one of the requirements of E3c. The difference is that A2a focuses explicitly on presenting project plans or results to an audience beyond the school, whereas the purpose and audience of the presentation are not specified in E3c. As the cross-referencing of examples under the performance descriptions indicates, oral presentations that meet the requirements of A2a may also satisfy the requirements of E3c; however, the reverse would not necessarily be the case.

The capacities defined by the tools and techniques standards (A2 - A5) are difficult to pin down. There is a tendency to describe them in terms of general dispositions that render them almost impossible to assess in any credible way. Each part of these standards is defined in terms of a work product or performance that students can use to provide concrete evidence of their achievement. The overall set of products and performances required to meet the standards is similar at each grade level, but the specific requirements differ and grow in demand from elementary to high school. (See “Appendix IV: The Grade Levels Compared: Applied Learning,” page 166.)

The first year of developmental testing of Applied Learning portfolios in 1995-96 provided an opportunity to test these performance standards (as they were presented in the Consultation Draft) in practice. Students in about 50 classrooms conducted projects designed around the standards. Their experience and the experience of the teachers who supported them was a valuable source of information for refining the performance descriptions. Refinements were also made in response to reviews by representatives of business and industry groups and community youth organizations, such as 4-H, Girl Scouts of the U.S.A., Boy Scouts of America, Junior Achievement, and Girls and Boys Clubs of America. The refinements were largely confined to the detail of the performance descriptions, but there were two more significant changes, both related to A3a. The first was the definition of more explicit requirements for using information technology, especially at the high school level, in response to comments from business and industry representatives. The second was the inclusion of a specific requirement for “research” as set out in A3a. Research was implicit in the draft performance standards. The decision to make it explicit arose in the process of review of student projects where it was clear that the successful projects were those in which students had invested energy in research and could demonstrate that research in the work they produced.

Experience in using the standards to shape student work raised several issues. It was notable that most projects focused on “design” and on “planning and organizing.” There were fewer examples of “improving a system.” This was not surprising, but indicates the need to focus attention on gathering examples of such projects.

The circumstances in which the projects were conducted varied markedly. Some projects were initiated by the teacher and some were initiated by students; some projects were conducted by whole classes, some by small groups of students, and some by individuals; some projects were conducted as part of classwork and some were conducted largely outside class. It was clear, however, that regardless of how a project was initiated, a critical part of its success was the development of a sense of responsibility among the students involved for figuring out the work that needed to be done to complete the project and for making sure that the work got done. What was less clear were the relative merits of different arrangements of whole class, small group, and individual projects. A further question was the appropriate level of scaffolding of projects by teachers and the degree of scaffolding that is appropriate at different grade levels. Our capacity to resolve this last issue was complicated by the fact that, for most of the teachers and students involved, these were the first projects of this sort they had ever undertaken. The work samples and commentaries should be read with this fact in mind. These are issues that can only be resolved through practice and experience.
A1 Problem Solving

Apply problem solving strategies in purposeful ways, both in situations where the problem and desirable solutions are clearly evident and in situations requiring a creative approach to achieve an outcome.

The student conducts projects involving at least two of the following kinds of problem solving each year and, over the course of middle school, conducts projects involving all three kinds of problem solving:

- Design a Product, Service, or System: Identify needs that could be met by new products, services, or systems and create solutions for meeting them.
- Improve a System: Develop an understanding of the way systems of people, machines, and processes work; troubleshoot problems in their operation and devise strategies for improving their effectiveness.
- Plan and Organize an Event or an Activity: Take responsibility for all aspects of planning and organizing an event or an activity from concept to completion, making good use of the resources of people, time, money, and materials and facilities.

Each project should involve subject matter related to the standards for English Language Arts, and/or Mathematics, and/or Science, and/or other appropriate subject content.

Design a Product, Service, or System

A1a The student designs and creates a product, service, or system to meet an identified need; that is, the student:

- develops a range of ideas for design of the product, service, or system;
- selects one design option to pursue and justifies the choice with reference, for example, to functional, aesthetic, social, economic, or environmental considerations;
- establishes criteria for judging the success of the design;
- uses appropriate conventions to represent the design;
- plans and carries out the steps needed to create the product, service, or system;
- makes adjustments as needed to conform with specified standards or regulations regarding quality and safety;
- evaluates the quality of the design in terms of the criteria for success and by comparison with similar products, services, or systems.

Examples of designing a product, service, or system include:

- Design and produce a history periodical for students.
- Design and build a wheelchair access ramp.
- Design and implement an induction program for students new to the school, including a handbook and other informational materials.
- Design and conduct a community survey to inform local council decisions about the future use of a community owned building or resource area.
- Design and build a grandfather clock.
- Design and stage a dramatic production.

Improve a System

A1b The student troubleshoots problems in the operation of a system in need of repair or devises and tests ways of improving the effectiveness of a system in operation; that is, the student:

- describes the structure and management of the system in terms of its logic, sequences, and control;
- identifies the operating principles underlying the system, i.e., mathematical, scientific, organizational;
- evaluates the way the system operates;
- devises strategies for putting the system back in operation or improving its performance;
- evaluates the effectiveness of the strategies for improving the system and supports the evaluation with evidence.

Examples of troubleshooting problems in the operation of a system or improving the effectiveness of a system in operation include:

- Earn the Auto Mechanics Merit Badge (Boy Scouts of America) or complete the Auto Maintenance Project (Girl Scouts of the U.S.A.).
- Conduct an energy audit of the classroom and develop procedures for reducing waste.
- Make recommendations to local officials about ways to improve water quality in the vicinity of the school.
- Design and equip a recreational area on one acre with a limited budget.
- Propose ways of re-establishing a neighborhood crime prevention organization that has become defunct.

Plan and Organize an Event or an Activity

A1c The student plans and organizes an event or activity; that is, the student:

- develops a plan that:
  - reflects research into relevant precedents and regulations;
  - includes all the factors and variables that need to be considered;
  - shows the order in which things need to be done;
  - takes into account the resources available to put the plan into action, including people and time;
- implements the plan in ways that:
  - reflect the priorities established in the plan;
  - respond effectively to unforeseen circumstances;
- evaluates the success of the event or activity;
- makes recommendations to others who might consider planning and organizing a similar event or activity.

Examples of planning and organizing an event or an activity include:

- Organize a science fair.
- Stage a dramatic production.
- Plan a field trip to study an ecosystem.
- Organize a program for providing voluntary services in household help and maintenance to elderly people in the local area.
- Organize a school carnival.
- Organize a special event for a local organization, such as an awards night or end of season celebration.
A2 Communication Tools and Techniques

Communicate information and ideas in ways that are appropriate to the purpose and audience through spoken, written, and graphic means of expression.

A2 a The student makes an oral presentation of project plans or findings to an audience beyond the school; that is, the student:
- organizes the presentation in a logical way appropriate to its purpose;
- adjusts the style of presentation to suit its purpose and audience;
- speaks clearly and presents confidently;
- responds appropriately to questions from the audience;
- evaluates the effectiveness of the presentation.

Examples of oral presentations include:
- A presentation to the board of a local organization of a proposal for a special event to be organized on behalf of the organization. 1a, 1b, 1c
- A presentation to the local council of results of a community survey designed to inform the council’s decisions about future use of a community-owned building or resource area. 1a, 2a, 2b, 3a, 3b, 3c
- A presentation to a local business of plans for a school carnival and a request for assistance in running the event. 1a, 2b, 3c
- A presentation to representatives of the school district’s buildings and maintenance department of designs for a wheelchair access ramp. 1a, 3a, 3c, 3d

A2 b The student conducts formal written correspondence with an organization beyond the school; that is, the student:
- expresses the information or request clearly for the purpose and audience;
- writes in a style appropriate to the purpose and audience of the correspondence.

Examples of formal written correspondence include:
- A letter to a museum seeking permission to reproduce artwork in a history periodical for students. 1a, 3a, 4a, 5a
- A letter to a local business seeking financial support for a school carnival. 1a, 2a
- Letters to the police and fire departments advising them of plans for a special event to be conducted on behalf of a local organization and seeking direction regarding safety regulations applicable to the event. 1c, 2a, 3c

A2 c The student publishes information using several methods and formats, such as overhead transparencies, handouts, and computer-generated graphs and charts; that is, the student:
- organizes the information into an appropriate form for use in the publication;
- checks the information for accuracy;
- formats the published material so that it achieves its purpose.

Examples of publishing information include:
- Publish a program for a dramatic production. 1a, 4a, 5a
- Publish a brochure advertising the school for new students. 1a
- Produce overhead transparencies and handouts to support a presentation to the local council on the results of a community survey designed to inform the council’s decisions about future use of a community-owned building or resource area. 1a, 2a, 3b, 5a

A3 Information Tools and Techniques

Use information gathering techniques, analyze and evaluate information, and use information technology to assist in collecting, analyzing, organizing, and presenting information.

A3 a The student gathers information to assist in completing project work; that is, the student:
- identifies potential sources of information to assist in completing the project;
- uses appropriate techniques to collect the information, e.g., considers sampling issues in conducting a survey;
- interprets and analyzes the information;
- evaluates the information for completeness and relevance;
- shows evidence of research in the completed project.

Examples of gathering information to assist in completing project work include:
- Research regulations and building standards related to designing and building a wheelchair access ramp. 1a, 2a, 3c
- Collect and test the quality of samples of water from nearby water sources. 1b, 2b, 3b, 5a
- Survey other neighborhoods to gather information about neighborhood crime prevention organizations that work. 1b

A3 b The student uses information technology to assist in gathering, analyzing, organizing, and presenting information; that is, the student:
- acquires information for specific purposes from on-line sources, such as the Internet, and other electronic data bases, such as a scientific data base on CD ROM;
- uses word-processing, graphics, data base, and spreadsheet programs to produce project reports and related materials.

Examples of using information technology to assist in gathering, analyzing, organizing, and presenting information include:
- Load, run, and use a data base program to manage data collected through a community survey. 1a, 2a, 3c, 5b
- Use on-line sources to collect information about water quality in nearby areas to inform research into water quality in the local area. 1b, 3a, 5b, 6d
- Use documentation and on-screen help to learn how to use a desktop publishing program for producing a history periodical for students. 1a, 2b, 4a, 5a
A4 Learning and Self-management Tools and Techniques

Manage and direct one's own learning.

A4 a The student learns from models; that is, the student:
- consults with or observes other students and adults at work, and identifies the main features of what they do and the way they go about their work;
- identifies models for the results of project work, such as professionally produced publications, and analyzes their qualities;
- uses what he or she learns from models to assist in planning and conducting project activities.

Examples of learning from models include:
- Examine professionally published journals to inform the design of a history journal for students. 1a, 2b, 3b, 5a

A4 b The student develops and maintains a schedule of work activities; that is, the student:
- establishes a schedule of work activities that reflects priorities and deadlines;
- seeks advice on the management of conflicting priorities and deadlines;
- updates the schedule regularly.

Examples of tools and techniques for developing and maintaining a schedule of work activities include:
- Develop daily, weekly, or longer term work plans, as appropriate.
- Use timelines to identify conflicting priorities and deadlines, and seek advice on resolving conflicting priorities and deadlines from teachers, clients, or peers, as appropriate.
- Review and revise work plans at the end of each day, week, or other period of time, as appropriate.

A4 c The student sets goals for learning and reviews his or her progress; that is, the student:
- sets goals for learning;
- reviews his or her progress towards meeting the goals;
- seeks and responds to advice from others in setting goals and reviewing progress.

Examples of tools and techniques for setting and reviewing learning goals include:
- Establish learning goals in consultation with the teacher and use the goals to inform choices about project activities, e.g., choose activities that provide opportunities to work towards established goals.
- Review work on a completed project in light of established learning goals.
- Seek feedback from teachers, clients, and peers to help set goals and review progress towards meeting them.

A5 Tools and Techniques for Working With Others

Work with others to achieve a shared goal, help other people to learn on-the-job, and respond effectively to the needs of a client.

A5 a The student takes responsibility for a component of a team project; that is, the student:
- reaches agreement with team members on what work needs to be done to complete the task and how the work will be tackled;
- takes specific responsibility for a component of the project;
- takes all steps necessary to ensure appropriate completion of the specific component of the project within the agreed upon time frame.

Examples of taking responsibility for a component of a team project include:
- Take responsibility for preparing an article for publication in a history magazine for students. 1a, 2b, 3b, 4a
- Take responsibility for the lighting aspects of a dramatic production. 1a, 2a, 4a
- Take responsibility for coordinating the analysis of data collected in a community survey. 1a, 2a, 2b, 3b

A5 b The student coaches or tutors; that is, the student:
- assists one or more others to learn on the job;
- analyzes coaching or tutoring experience to identify more and less effective ways of providing assistance to support on-the-job learning;
- uses the analysis to inform subsequent coaching or tutoring activities.

Examples of coaching or tutoring include:
- Coach another student in the use of a software program. 3b
- Coach a group of younger students undertaking a project.
- Tutor other students in techniques for analyzing water quality. 1b, 3a, 3b, 57a

A5 c The student responds to a request from a client; that is, the student:
- consults with a client to clarify the demands of a task;
- interprets the client's request and translates it into an initial plan for completing the task, taking account of available resources;
- negotiates with the client to arrive at an agreed upon plan.

Examples of responding to a request from a client include:
- Negotiate with disabled members of the school community to design a wheelchair access ramp appropriate to their needs. 1a, 2a, 3a
- Negotiate with the board of a local organization to organize a special event on its behalf. 1a, 2a, 2b
- Negotiate with a committee of elderly citizens to organize a program for providing voluntary services. 1a
The task
Students in an English/reading class decided to produce news videos that could be used to inform students of events at the school, to recruit prospective students, and to orient new students to the school.

Circumstances of performance
Students in the class worked initially as a whole class group and then both individually and in groups. They received advice and feedback from the teacher and their peers. The students also obtained assistance from other school personnel. Much of the work was done at school; however, for the technical production of the video the students had access to the video editing equipment in the school district's instructional television department. They were trained in the use of the equipment by district personnel. The project lasted several months and the students produced two videos. The original plan was to produce one video in each reporting period, however, the time required to produce the videos and the limited availability of equipment reduced the number to two videos.

The written work included with this project contains some errors. For the main part the errors are confined to journal entries and other planning documents which were produced for personal use only and were not intended for publication. The two pieces of finished writing are the proposal and the letter to the business. These contain virtually error free writing.

What the work shows

A1 Problem Solving: The student designs and creates a product, service, or system to meet an identified need; that is, the student:
- develops a range of ideas for design of the product, service, or system;
- selects one design option to pursue and justifies the choice with reference, for example, to functional, aesthetic, social, economic, or environmental considerations;
- establishes criteria for judging the success of the design;
- uses appropriate conventions to represent the design;
- plans and carries out the steps needed to create the product, service, or system;
- makes adjustments as needed to conform with specified standards or regulations regarding quality and safety;
- evaluates the quality of the design in terms of the criteria for success and by comparison with similar products, services, or systems.

This work sample illustrates a standard-setting performance for the following parts of the standards:

A1 Problem Solving: Design a product, service, or system.
A2 Communication: Conduct formal written correspondence.
A4 Learning and Self-management: Learn from models.
A4b Learning and Self-management: Develop and maintain a schedule of work activities.
A5 Working With Others: Take responsibility for a component of a team project.

The documentation presented from this project is not a comprehensive record of all work done as part of the project. It would be neither reasonable nor appropriate to ask students to keep detailed written records of every aspect of a project. This would defeat part of the purpose of applied learning which is for students to put their academic learning to work and to learn from projects that connect what they do at school to the demands of the twenty-first century workplace. Some of these standards lend themselves to assessment through observation and other less formal methods rather than through written work.
Video 2

The work shown here documents the process of designing and developing a product to solve a problem. The project, Video 2, was developed in direct response to several concerns of the English/reading class.

A. The proposal contends that many of the students and their parents do not know "about what's going on at our school." Secondly, too many students at feeder schools are choosing to attend other middle schools. Thirdly, students new to the school have a "scary" time adjusting. The students proposed to address the problem by producing a video. The proposal includes evidence of background research and planning.

B. This comparison chart records the findings of the students' research into video cameras as background for their proposal.

In many projects, the process of exploring a range of designs happens in class discussion. This was the case in this project and there is no surviving documentation of the initial planning process. Thus, the documents featured with this commentary trace the progression of the project after the students selected the design option, i.e., the news video. The documents demonstrate how the design plan was implemented.

C. The extract from the draft script for Dateline MMS demonstrates use of one of the conventions appropriate for presenting the design for a video.

D. One student's log entry records the process her group followed in planning and developing its story for the video.

E. Another student's log explains how the video was taped and edited.

F. Not only does the student work show the production process, it also links the initial criteria established for governing the quality of the product to the final evaluation of the video. In order to determine the features of a successful news program, the students viewed "Good Morning, America," a morning television program. After that, the students identified the factors they regarded as contributing to the success of the production and then grouped the factors by categories.

G. The students used their list of effective features of a news production to produce a news video rubric for evaluating their work.
C. The rubric influenced the development of the project. An example is the Script for Dateline MMS which follows the format of professional news programs. For example, the video begins by announcing all the stories that will be featured; the anchors provide the linking information and hand off to reporters responsible for specific stories.

H. Later the students used the criteria in their comparative evaluations of Video 1 and Video 2. This student considered the second video better than the first because of the stories, the topics’ appeal to the targeted audience, fewer technical problems, and a more professional look. The evaluation’s references to “improvement” imply that following the production of the first video, the process is adjusted to improve the quality of the second video. Suggestions to future video teams include the use of a body microphone in order to improve the sound quality.

Communication Tools and Techniques: The student conducts formal written correspondence with an organization beyond the school; that is, the student:

- expresses the information or request clearly for the purpose and audience;
- writes in a style appropriate to the purpose and audience of the correspondence.

The proposal for the purchase of a video camera was written to the principal rather than to an organization beyond the school. Nevertheless, it expresses the request clearly for the purpose and audience and is written in an appropriate style for a proposal of this sort. It opens with a summary of the proposal; makes good use of headings to organize the sections of the proposal; and restricts itself to information that is pertinent to the proposal.

The letter to a business to request funding for a video camera is expressed clearly and is written in a style appropriate to its purpose and audience. The students attached their proposal to the formal letter rather than attempting to summarize it in the body of the letter. This strategy is typical of formal business correspondence.

The business was unable to comply with the students’ request but responded with an offer of an alternative solution.
Video 2

A4 Learning and Self-management Tools and Techniques: The student learns from models; that is, the student:

- consults with or observes other students and adults at work, and identifies the main features of what they do and the way they go about their work;
- identifies models for the results of project work, such as professionally produced publications, and analyzes their qualities;
- uses what he or she learns from models to assist in planning and conducting project activities.

The students learned video recording/editing skills from a professional media specialist. This log provides evidence that the students had a clear goal of learning how to use the equipment. After mistakes made early in the training, the students monitored their progress and "realized we needed more instruction." They negotiated additional training and reported beginning to do "real editing" later in the week. This is an example of students assuming responsibility for the direction of their learning.
The students used “Good Morning, America” as a model for the result of their work. The documents provide evidence of the students’ analysis of the qualities of the program, their use of the analysis to develop a rubric for evaluating their own production, and their evaluation of their work based on the elements of that rubric.

**Learning and Self-management Tools and Techniques:** The student develops and maintains a schedule of work activities; that is, the student:

- establishes a schedule of work activities that reflects priorities and deadlines;
- seeks advice on the management of conflicting priorities and deadlines;
- updates the schedule regularly.

The students used a number of strategies for scheduling their work activities.

**Tools and Techniques for Working With Others:** The student takes responsibility for a component of a team project; that is, the student:

- reaches agreement with team members on what work needs to be done to complete the task and how the work will be tackled;
- takes specific responsibility for a component of the project;
- takes all steps necessary to ensure appropriate completion of the specific component of the project within the agreed upon time frame.

Several documents show students working in teams and having a clear sense of the general task and also each individual member’s part of the task.

**The jobs list shows how the project was divided into components with a small group of students taking responsibility for each component.**

**This student’s log makes explicit reference to the need for teamwork in order to get the work done.**
The division of responsibility within teams and recognition of the importance of coordinating individual team members' efforts is evident in the student's comment, "Since we have certain tasks we each will make sure that we follow through with them to make this a good and enjoyable story!"

Even though the work demonstrates recognition of individual responsibility and obvious agreement among group members, there is also the recognition that things could have been better. This log entry includes a suggestion for more efficient use of time through better communication among the several teams, possibly through the use of a bulletin board to share the schedules for all of the groups.
Video 2

Dear Mr. Michael

Our 7th grade Applied Learning Class is submitting the following proposal for a project that our class feels would be well received by both the students and the community. We are working on this project in order to raise money for our trip to Disney World. We hope that you will consider it worthy of helping us in this endeavor. Thank you for your consideration and time.

Sincerely,

Applied Learning Class

Date: December 19, 1995

Approval:

[Signature]

[Date]

[Name]

[Position]

[Signature]

[Date]

[Name]

[Position]

[Signature]

[Date]
Video 2

OJC Journal Entry
December 13, 1995

I planned what we were going to do and when it happened naturally, it didn't happen. The whole group did it. We accomplished many different tasks. We were able to move and work on the scenes of the movie. We learned about it and we realized how it relates to the movie. We created a script and wrote it. We got all of the groups to contribute and so did our group. We had a problem, our group didn't know what we did not have more. The people in our group shared. I think when they should now have something because we were constantly

ALP Journal

I had a pretty big part in our news video. Although I was an anchor, I did most of my work behind the scenes. I was an editor. I never realized how much work it takes to edit a simple 10 min video.

We had planned to have the video done and ready to show on December 4. Well, now it is December 13 and the video is not yet finished.

I learned a lot while working on this video. I learned how to edit, the quality of hard work, and most importantly what if you want to get anything done, you have to work as a team.

I think that the anchors should have practiced some more. Than we would have been able to get the feel of each other and have been more relaxed.
Work Sample & Commentary: Student Historical Magazines

The task
Students on an English/history team designed and published a series of magazines organized around historical themes. The magazines provided entertaining, informative summer reading materials to middle school students who could not afford to buy magazines of this kind.

Circumstances of performance
On the basis of data gathered from a questionnaire that the class designed, distributed and collected, the students developed the magazines using historical themes that matched the interests of their audience. The students worked as individuals and as members of teams, with each team focusing on a specific theme. The history and English teachers served as consultants and monitors in order to ensure that students accomplished content objectives. The project lasted approximately three months and happened in conjunction with other class work.

What the work shows
A1 a Problem Solving: The student designs and creates a product, service, or system to meet an identified need; that is, the student:
- develops a range of ideas for design of the product, service, or system;
- selects one design option to pursue and justifies the choice with reference, for example, to functional, aesthetic, social, economic, or environmental considerations;
- establishes criteria for judging the success of the design;
- uses appropriate conventions to represent the design;

This work sample illustrates a standard-setting performance for the following parts of the standards:

A1 a Problem Solving: Design a product, service, or system.
A2 c Communication: Publish information using several methods and formats.
A3 a Information: Gather information.
A3 b Information: Use information technology.
A4 b Learning and Self-management: Develop and maintain a schedule of work activities.
A5 a Working With Others: Take responsibility for a component of a team project.

- plans and carries out the steps needed to create the product, service, or system;
- makes adjustments as needed to conform with specified standards or regulations regarding quality and safety;
- evaluates the quality of the design in terms of the criteria for success and by comparison with similar products, services, or systems.

The documentation presented from this project is not a comprehensive record of all work done as part of the project. It would be neither accessible nor appropriate for students to keep detailed written records of every aspect of a project. This would defeat part of the purpose of applied learning which is for students to put their academic learning to work and to learn from projects that connect what they do at school to the demands of the twenty-first century workplace. Some of these standards lend themselves to assessment through observation and other less formal methods rather than through written work.
The brief proposal explains that the magazines “will provide a source of historical education for our group as well as the readers.”

The students reviewed the design of a number of professionally produced magazines before settling on their own. These professional magazines also provided the criteria that the students used to determine the qualities that characterize successful magazines. Students tested the product before launching into final production and made adjustments to improve the quality of several aspects of the magazine: “Once we finished developing our project, we test ran it and evaluated the results by having two groups of people look at it and make comments.”

In carrying out the steps in the production process, e.g., the planning described in this student’s log, there is also evidence that the students learned about and followed some of the regulations that apply to magazine publication. See the entries for 3/30 and 3/31.

This letter gives permission to reproduce artwork. The cover of one issue of the magazine incorporates that reproduced work. The documentation provides evidence of the students assuming responsibility for the design and implementation of the product.
The student publishes information using several methods and formats, such as overhead transparencies, handouts, and computer generated graphs and charts; that is, the student:

- organizes the information into an appropriate form for use in the publication;
- checks the information for accuracy;
- formats the published material so that it achieves its purpose.

The work includes several examples of organizing and communicating information for publication using different methods and formats, e.g., the cover of one of the magazines which incorporates headlines to attract the reader to look inside; articles for the magazine; and a chart prepared to show changes in transportation over time.
Student Historical Magazines

Interview With The Vet

It was a quiet night in 1978. The sun was setting, and the stars were beginning to twinkle in the night sky. The air was cool and the wind was blowing gently. I was taking pictures of the peaceful scene with my camera, trying to capture every detail of the beautiful landscape.

As I sat there, a figure entered the frame. It was a person walking slowly and steadily towards me. As he approached, I could see that he was carrying a large backpack, and he had a determined look on his face.

"Hello," he said. "I'm a historian and I'm here to learn more about the history of this area." I greeted him back, and we began to talk.

He told me that he was studying the history of the area and was particularly interested in the role that the local people played in shaping the region. He wanted to know more about the struggles and achievements of the people who lived here, and how they had overcome adversity.

I was fascinated by what he was saying, and I asked him to share more information with me. He was happy to do so, and we spent the rest of the evening discussing the history of the area and the people who had lived here.

As the night wore on, I felt a sense of peace and tranquility wash over me. I realized that the history of this area was a rich and complex tapestry, full of challenges and opportunities. I knew that I wanted to learn more, and that I would continue to explore the history of this region in the years to come.
Information Tools and Techniques: The student gathers information to assist in completing project work; that is, the student:

- identifies potential sources of information to assist in completing the project;
- uses appropriate techniques to collect the information, e.g., considers sampling issues in conducting a survey;
- interprets and analyzes the information;
- evaluates the information for completeness and relevance;
- shows evidence of research in the completed project.

These documents trace the development of a single article from research, both into the topic for the article and into the use of interviews to obtain information, to a transcript of the interview and, finally, to the completed article for publication. These documents provide evidence for collection of information from several sources and organization of the information into a form appropriate for a journalistic article. The article reports the interviewee’s words faithfully.

Information Tools and Techniques: The student uses information technology to assist in gathering, analyzing, organizing, and presenting information; that is, the student:

- acquires information for specific purposes from online sources, such as the Internet, and other electronic data bases, such as a scientific data base on CD ROM;
- uses word-processing, graphics, data base, and spreadsheet programs to produce project reports and related materials.

The magazines are desktop publications that were word-processed. The articles and chart were produced on desktop publishing software.

This student’s log provides evidence of a familiarity with the use of information tools and techniques, e.g., the entry dated 4/4 includes, “I do not have Microsoft Publisher, so I will just type the article on Microsoft Works, bring it to school, and merge it into Publisher, tomorrow at school,” and the log entry dated 4/5 includes, “Today I had disk problems, so my entire article (though format was not changed), was erased. I have to type some papers over during this weekend, to get layouts turned in, in sufficient time.”

Learning and Self-management Tools and Techniques: The student develops and maintains a schedule of work activities; that is, the student:

- establishes a schedule of work activities that reflects priorities and deadlines;
- seeks advice on the management of conflicting priorities and deadlines;
- updates the schedule regularly.

This is an example of a work schedule, in this case in the form of a log produced on a daily basis in which each day’s record grows out of the previous day’s work and closes with tasks established for the next day. The log records work activities associated with two concurrent projects. It would provide a valuable memory aid to assist the process of reviewing progress towards achieving learning goals.

Tools and Techniques for Working With Others: The student takes responsibility for a component of a team project; that is, the student:

- reaches agreement with team members on what work needs to be done to complete the task and how the work will be tackled;
- takes specific responsibility for a component of the project;
- takes all steps necessary to ensure appropriate completion of the specific component of the project within the agreed upon time frame.

This student’s record provides evidence for students’ reaching agreement among team members on the work to be done and how it would be tackled, and for students’ taking responsibility for specific components of the project.
Work Sample & Commentary: Career Day

The task
An English class was asked by the principal to plan a career day event for the entire school.

Circumstances of performance
The students had approximately six weeks to plan, organize, and stage the career day. The students were responsible for contacting people, organizing the schedule, and keeping the students and teachers in the school informed. The students had the benefit of examining the previous year's career day which had also been a student-directed event. During the fall semester, the students performed writing tasks and a one day work internship at a place of business that helped prepare them for the project. Most of the work was completed in class with feedback from peers and the teacher. Other adults in the building, including secretaries and administrators, assisted students with tasks such as phone calls, permission forms, and advertisements. The students worked on the project while completing other assigned tasks in the class.

The written work included with this project contains some errors. For the main part the errors are confined to journal entries and other planning documents which were produced for personal use only and were not intended for publication. The pieces of finished writing are the proposal to the principal, the document titles, “Career Day,” the note to parents, the handout for teachers, the brochure, the map, and the evaluation forms. These contain virtually error free writing.

What the work shows
A1 e Problem Solving: The student plans and organizes an event or activity; that is, the student:
- develops a plan that:
  - reflects research into relevant precedents and regulations;
  - includes all the factors and variables that need to be considered;
  - shows the order in which things need to be done;
  - takes into account the resources available to put the plan into action, including people and time;
- implements the plan in ways that:
  - reflect the priorities established in the plan;
  - respond effectively to unforeseen circumstances;
- evaluates the success of the event or activity;
- makes recommendations to others who might consider planning and organizing a similar event or activity.

This work sample illustrates a standard-setting performance for the following parts of the standards:

- A1 e Problem Solving: Plan and organize an event or an activity.
- A2 e Communication: Publish information.
- A3 e Information: Use information technology.
- A4 e Learning and Self-management: Set learning goals and review progress.
This proposal to the principal seeks permission for the students to take part in Vital Link, a program of one-day internships in businesses. The last paragraph points to the development of the career day as an outgrowth of the students’ participation in Vital Link. The proposal also states the connection to goals and other learning that would be important to the principal.

This document relates to the overall organization, purpose, and evaluation of the event. All variables that need to be considered are included such as the committees and the duties of each. The document makes sense in terms of the order of assignments to be accomplished. This document is clear enough for someone else to use when developing a similar project.

These student records evaluate the plan both in progress and in retrospect. The records include statements concerning adjustments and recommendations to correct problems if the event were to be staged again. The evaluations make reference to unforeseen circumstances that arose and other published documents confirm that the students overcame the problems.
Career Day

I learned about my quests that I introduced, I also learned how to apply my listening and speaking skills. Everything went smoothly! The schedule went really good, everyone got to the correct place on time. I think everything went well, I only had one problem, and that was one of the speakers went over the session time and made my speaker have less time to talk. If we had another Career Day, I would think we would need to have more speakers that are coming like my speaker. Several days before and make sure they coming and ask them if there are any other quests with them. I would still have a lunch and have special committee and have it set up as it was. I think we did a good job and everyone had a part in being a speaker, so no one got left out. I would definitely do it again any time, and I know others will agree. Thanks Mrs. _____ for your hard work in this, it was lots of fun.

Communication Tools and Techniques: The student publishes information using several methods and formats, such as overhead transparencies, handouts, and computer generated graphs and charts; that is, the student:

- organizes the information into an appropriate form for use in the publication;
- checks the information for accuracy;
- formats the published material so that it achieves its purpose.

This is a note written to parents and guardians seeking help in identifying businesses to participate in the Vital Link component of the project. The students adopted a style common for such notes from school to home.

Dear Parents or Guardians,

Mrs. _____'s 1st period English class has chosen Vital Link for our applied learning project for this year. Vital Link is where students go to place of work for a day. This will help your child and other children in the future by giving them valuable skills and know how of real world. We also have found out why parents do not want to participate in the project, if you are interested in finding a place for your child or other students, or if you have any questions about your child, please contact the school at 313-456-7890. We need some time from you parents so we can support in the project. If you are interested in finding a place for your child or other students, or if you have any questions about your child, please contact the school at 313-456-7890.

Thank you,

[Signature]

[Date]

I will allow my child to go to an adult office for a day.

[Signature]

I will allow my child to drive and pick me up at the end of the day.

[Signature]

I will allow my child to work in an office for a day.

[Signature]

[Parent's Name]

[Child's Name]
This handout was prepared to inform teachers about the schedule and other arrangements for the career day. It is presented in a format appropriate to its purpose and anticipates the readers' needs by providing information in addition to the schedule.

These pages are the front and back of an informational brochure that was given to each student in the school on the career day.

This document demonstrates one student's translation of background information collected prior to the career day into a format written for an oral presentation. This same information in a brief form appears in the brochure.

The students prepared this map of the school to help direct the speakers visiting the school on the career day.
Career Day

A3 b Information Tools and Techniques: The student uses information technology to assist in gathering, analyzing, organizing, and presenting information; that is, the student:

- acquires information for specific purposes from on-line sources, such as the Internet, and other electronic data bases, such as a scientific data base on CD ROM;
- uses word-processing, graphics, data base, and spreadsheet programs to produce project reports and related materials.

The students used word-processing programs to produce a range of materials.

K L M Students used a graphics package to produce the school map and a spreadsheet package to produce the charts scheduling the speakers.

A 4 e Learning and Self-management Tools and Techniques: The student sets goals for learning and reviews his or her progress; that is, the student:

- sets goals for learning;
- reviews his or her progress towards meeting the goals;
- seeks and responds to advice from others in setting goals and reviewing progress.

A B D E F These documents demonstrate that goals and a system of self-management were in place. The student evaluations indicate the things that went well. Areas for improvement such as the student's frustration with other students meeting their responsibilities by writing descriptive paragraphs, and the need to make phone calls to adults prior to the adults showing up on the assigned day, demonstrate a capacity to review progress towards goals as well as the management of conflicting priorities. Students commented about both the features of the career day that went well, such as the brunch, and the things that went less well, such as the balloons that said happy birthday.

N O P Through the formal evaluation forms, the students collected information to check their understanding of how well the event was planned and staged against the perceptions of the adults and students who participated in the event.
Middle School Applied Learning

Career Day

Guest Evaluation

1. What is your name and occupation?

2. Did you enjoy our March 7, 1996 Career Day?

3. Do you think the students enjoyed your presentation? Why?

4. Were the welcoming committee and host/hostess points?

5. If you were invited again would you come? Why?

6. On a scale of 1-10, how would you rate our Career Day? Why?

7. What suggestions do you have about Career Day?

Student Evaluation

1. Who came to your classroom? List their occupation, please.

2. What interested you the most about the presentation of speakers?

3. Did the speaker's information have an effect on what you want to be when you become an adult?

4. What rating would you give Career Day on a scale to 1-10, 10 being the greatest? 2.

5. How do you think we could improve Career Day?