

FINAL REPORT

PREFERRED STANDARDS TO SUPPORT NATIONAL COOPERATION IN APPLYING TECHNOLOGY TO VOCATIONAL EDUCATION AND TRAINING

YEAR 2000

1. PROJECT SUMMARY

1.1 Methodology

The Project investigated standards in six areas

management systems (including data storage and transmission) - AVETMISS, IMS, AICC, etc

groupware(document management, workflow management, scheduling, calendar, chat, application sharing, whiteboard, forums, email) - ODMA, ODMA workflow extensions, Workflow Coalition distributed workflow architecture, iCalendar, vCalendar, T120, vCard, SMTP, IMAP4, MIME, etc

web protocols - XML, HTML, HTTP, Java, Javascript, etc

multimedia - delivery standards: SDP, RTSP, H320, H323, gateways for H320 and H323, RTCP, RTP, HTTP; coordination standards: SMIL; encoding standards: hinted quicktime, ASF; compression schemes: H261, sorenson, etc, data types: MPEG, AVI, AU, GIF, JPEG, PDF, etc

resource locator technologies (meta data, search engines, and directory services) - LDAP, X400, X500, Dublin Core, EdNA Metadata, IMS Metadata, etc, and

hardware (for client computers) - processor power, main memory, disk storage, monitor resolution, graphics memory, modem speeds, etc.

Work on the project commenced in July 2000.

The Project was overseen by a Steering Committee. Steering Committee members were nominated by the EdNA VET Advisory Group. Membership of the Steering Committee is listed in the next section.

The Project was managed by the Project Manager. The Project Manager reported to the Steering Committee.

Six Working Groups were established to investigate the six standards areas. The Working

Groups represented the States and Territories and were comprised of nominees of the Steering Committee. The Working Groups met in a series of Workshops. Individuals comprising the Working Groups are acknowledged in the Workshop Papers on the Project Web Site.

The Project Manager and the Working Groups were assisted by DSTC Pty Ltd acting as Consultant. The Consultant prepared background papers, arranged the Workshops, made presentations at the workshops, conducted a survey on the use of standards in Vocational Education and Training, developed a Communication Plan, and produced a draft final report. The consultancy team was led by Ms Margaret Turner and Mr Frank Eilert. Individual researchers are acknowledged in the Workshop Papers on the Project Web Site.

Initially, DSTC research staff authored Discussion Papers on the six standards areas assigned to the working groups. For each of the standards areas, an email list was used for discussion by members of the relevant Working Group. Documents were placed on the Project Web Site.

The Project Manager proposed candidate recommendations to be discussed on the email list. DSTC staff extended the Discussion Papers to cover the technologies in the candidate recommendations and produced the Workshop Papers. DSTC research staff worked with the Project Manager in further developing the candidate recommendations for discussion at the workshops. Comments from the email lists were also incorporated into the Workshop papers.

Workshops for each standards area were held in early October with attendance from all jurisdictions. The results of the workshops were incorporated into the Workshop Papers. The Workshop Papers were presented to the Steering Committee in November. Comments from the Steering Committee were incorporated into the final reports which are available on the Web Site.

A Communication Plan was developed to disseminate and encourage the uptake of the Preferred Standards. A draft was produced in July. Feedback was obtained from the Steering Committee via the email list and the October and November meetings. The final version is included in the Project Report.

A User Guide has been prepared.

As part of this project, DSTC developed proof-of-concept demonstrations. The aim of the demonstrations was to introduce possibilities for the technology to the project stakeholders. At the October Steering Committee meeting, DSTC demonstrated the transfer of a student record between two registered training providers. The transfer used an XML schema consistent with AVETMISS. DSTC demonstrated the use of the SMIL language for choreographing multimedia presentations. Also demonstrated was DSTC's learning management system (under development).

A survey was conducted to gather information about the use of the 1998 Preferred Standards, specifically

the relevance of standards within projects,

initiatives and projects that have used the standards,

opportunities for improving the preferred standards, and

constraints and barriers to the use of the preferred standards.

The survey was distributed to all jurisdictions and the results and consequent recommendations are included in the Project Report.

Recommendations are grouped into eight categories

standards to be adopted as Preferred Standards,
emerging standards to be monitored,
operational guidelines for the use of the Preferred Standards,
continuing work related to Preferred Standards,
proposed new projects,
user guide,
communications plan, and
survey results.

1.2 Steering Committee

The Steering Committee at 3rd November, 2000 was as follows

Mr Charles Henderson (Chairman, Qld)
Mr Mark Bevelander (Vic)
Ms Jean Hollis (Tas), for Graham Walsh
Mr Ian Hutton (NSW)
Ms Gabrielle Onitiri (Cth), for Ms Janette Lenz
Mr Tony Richards (NT)
Mr Paul Rixon (SA)
Mr Harry Yaldren (ACT)
Mr Stuart Young (WA)

1.3 Project Manager

The Project Manager was Mr Jon Henry from the Queensland Department of Employment, Training, and Industrial Relations.

1.4 National Collaboration

The Steering Committee comprised representatives from all States and Territories and the Commonwealth. Steering Committee members were appointed by EdNA VET Advisory Group members.

Members of the Working Groups were nominated by the Steering Committee members.

1.5 Advantages of Undertaking the Project within the Collaborative Framework

The Collaborative Framework made the Project possible. The Project was about national cooperation and the Collaborative Framework provided the means by which national representation on the Steering Committee the Working Groups was obtained.

The Collaborative Framework provided an environment which encouraged agreement among members of the Steering Committee and within the Working Groups. The timeframe, the need for Project Reports, and the aim of gaining endorsement from Australian National Training Authority CEOs all contributed to the achievement of agreement.

Linkages with other projects in Strategy 2000 provided an immediate need for results from the Preferred Standards Project. For example, the Preferred Standards will guide future Toolbox development and Infrastructure Investment. The Project was able to gather momentum because of these linkages.

1.6 Disadvantages of Undertaking the Project within the Collaborative Framework

Direct involvement of officers from both the EdNA VET Advisory Group Secretariat and the Australian National Training Authority provided excessive bureaucracy. The Letter of Agreement covering the provision of funds was between the Project Manager's organisation and the Australian National Training Authority only. The EdNA VET Advisory Group was directly represented on the Steering Committee. One solution to the problem of excessive bureaucracy would be to require that the EdNA VET Advisory Group Secretariat channel communications through the relevant officer from the Australian National Training Authority.

The procedures followed in defining, allocating, and contracting the Strategy 2000 Projects left less than half the year for the actual work to be performed.

The EdNA VET Advisory Group Secretariat created a number of problems. One of these problems involved delays in providing guidelines and graphics for the web site. Another problem concerned attempts to force Secretariat representation on the Steering Committee in spite of the fact that the Steering Committee had been nominated by the EdNA VET Advisory Group members themselves. At the date of this report, the Secretariat had not arranged to obtain EdNA VET Advisory Group endorsement of the Recommendations in spite of the fact that this action was requested by the Project Manager on 22nd November, 2000.

Australian National Training Authority officers also created problems. One example was the lack of adequate response to the Project Manager's request for information related to the Australian National Training Authority's requirements in relation to the Goods and Services Tax. The Letter of Agreement stated that graphics for use in publications would be provided before the end of April but such graphics were never provided. Payments were delayed well after the Project Manager had submitted the reports required by the Letter of Agreement.

1.7 Other Comments

More commitment from the State and Territory Training Agencies is needed in terms of staff time. The Project Manager had important other duties to perform (including working on other

Strategy 2000 Projects) and could not devote as much time to this Project as was warranted. The availability of support staff from within the Project Manager's organisation would have alleviated the problem.

More commitment from participating organisations is also needed in terms of priority. Most members of the Steering Committee and the Working Groups were forced to treat this important National Project as a low priority activity. It was extremely difficult at times to gain responses from the Steering Committee members out of session. In contrast to this, whenever members were present together in person, their personal commitment to the task was obvious.

Face to face meetings were far more successful than interaction via email lists or teleconferencing. Email lists should have been very effective for this particular Project because of the asynchronous and non-intrusive nature of the communication and because of the highly technical nature of the subject matter. It appeared that aircraft travel prior to a meeting provided the only opportunity for some people to read the relevant papers. This is an expensive and ineffective way of gaining input.

A solution would be to require a formal arrangement between EdNA VET Advisory Group Members and the people that they nominate to serve on Steering Committees and Working Groups. The arrangement would provide for the allocation of working time in return for the production of appropriate input to national projects.

The Administrative Instructions of the Project Manager's organisation are not designed to allow the setting up of consultancies in a time frame appropriate for projects of this nature. A possible solution would be for the Australian National Training Authority to make the contractual arrangements.

The Project Manager himself provided contributions to the outputs of the Project beyond the management of the necessary administrative procedures. These contributions included

- proposal of candidate recommendations to be considered by the Working Groups,

- chairing of the Working Group Workshops,

- development of the table of Preferred Standards that relates desired training results to relevant standards,

- consolidation of recommendations from the Working Groups,

- authoring of the Summary and Recommendations for Australian National Training Authority CEOs, and

- preparation of the web site.

The Project Manager should be requested to maintain his association with Preferred Standards Projects of the future.

The Consultant, DSTC Pty Ltd, performed well beyond the requirements of the Consultancy Contract. DSTC could well assist with Preferred Standards Projects of the future.

2. OUTPUTS, OUTCOMES, PERFORMANCE CRITERIA

2.1 Outputs and Outcomes

Output Planned	Output Produced	Issues
communication plan for the dissemination of the <i>Preferred Standards</i> including the maintenance of the web site set up by the 1998 Project	communication plan complete with indicative budget breakdown	the communication is to be implemented by the Secretariat and this may require continued contact between the Project Manager and the Secretariat
report on the adoption of the <i>Preferred Standards</i> from the 1998 version	detailed report on comprehensive survey plus resulting recommendations	1998 Preferred Standards were not widely used and further action is required
updated and extended version of the <i>Preferred Standards</i>	completely new version with detailed recommendations on relevant standards, operational guidelines, continuing work, and a guide to the use of the document	many relevant standards are currently under development and continuing monitoring is essential to keep the <i>Preferred Standards</i> up to date
endorsement of the ANTA CEOs of revisions and additions to the <i>Preferred Standards</i>	delayed by EdNA VET Advisory Group Secretariat	EdNA VET Advisory Group members will need to assist their respective CEOs
progress on projects recommended by the 1998 Working Groups, e.g. directory services and groupware services	proof of concept demonstrations, detailed recommendations	the Working Groups identified many more projects and priorities will need to be set, directory services is proceeding as a separate project in 2001

2.2 Performance Criteria

Criterion	Report	Issues
work recommended in 1998 report accomplished	work on standards to be adopted was completed, development projects were only marginally advanced	standards are advancing at such a rate that monitoring them is a continuous task and development projects must be considered as separate individual projects

completion by due date	project was completed by the due date	Secretariat was requested on 22nd November to arrange for the EdNA VET Advisory Group to consider the recommendations
satisfaction of Steering Committee with work of Working Groups and Consultant	Steering Committee accepted the draft Final Report with minor changes to the wording of some recommendations	Project Manager and Consultant proved their ability to handle projects of this nature
endorsement of Australian National Training Authority CEOs	Final Report will go to Australian National Training Authority CEOs after endorsement by the EdNA VET Advisory Group	awaiting action by Secretariat

3. Project Products

Product	Sign Off	Future
recommendations on Preferred Standards	EdNA VET Advisory Group endorsement awaited, Steering Committee finalised consideration on 3rd November	published on web site, need continuing updating
recommendations on operational guidelines	EdNA VET Advisory Group endorsement awaited, Steering Committee finalised consideration on 3rd November	published on web site
recommendations on continuing standards work	EdNA VET Advisory Group endorsement awaited, Steering Committee finalised consideration on 3rd November	to be implemented as a Strategy 2001 Project
recommendations on proposed new projects	EdNA VET Advisory Group endorsement awaited, Steering Committee finalised consideration on 3rd November	to be considered by the EdNA VET Advisory Group for possible implementation in future years

recommendations from survey of use of 1998 <i>Preferred Standards</i>	EdNA VET Advisory Group endorsement awaited, Steering Committee finalised consideration on 3rd November	to be considered by Australian National Training Authority CEOs
recommendations on communications plan	EdNA VET Advisory Group endorsement awaited, Steering Committee finalised consideration on 3rd November	to be implemented by Secretariat
guide to use of <i>Preferred Standards</i> document	EdNA VET Advisory Group endorsement awaited, Steering Committee finalised consideration on 3rd November	published on web site, to be used by Vocational Education and Training practitioners

J L Henry
Project Manager
27th February, 2000