Implementation Model for Computer Applications

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Note: Sizes of the boxes are relative to amount of time and effort required

1 Originally adapted from Sampson, J. P., Jr. (1996). Effective computer-assisted career guidance (Occasional Paper Number 2). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.
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**Program Evaluation**
Evaluate Currently Available Resources and Services
- Review the Needs of Clients
- Review the Features of Currently Available Assessment, Information, and Learning Resources
- Review the Services Provided to Help Clients Effectively Use Available Resources
- Identify Client Needs that are Met Effectively with Currently Available Resources and Services
- Identify Gaps in Current Resources and Services in Effectively Meeting Client Needs
- Briefly Review the Features of Typical Computer Applications
- Decide if a Computer Application Can Narrow Gaps in Resources and Services

Prepare for Implementing a Computer Application
- Create an Implementation Committee and Choose a System Site Coordinator
- Prepare a Plan for Implementing a Computer Application
- Identify Stakeholders and Administrators Who Can Provide Support for Improved Services

**Software Selection**
Identify Computer Applications That Have Assessment, Information, and Learning Features That Might Meet Clients' Needs
- Evaluate the Features, Quality, and Costs of the Computer Applications Being Considered
- Select the Computer Application That Best Balances Features, Quality, and Costs

**Software Integration**
Prepare for Integrating A Computer Application With Existing or New Services
- Review the Needs of Clients, Staff, Your Organization, and/or Institution
- Review Current Services Provided to Help Clients Use Assessment, Information, and Learning Resources
- Discuss Theory and Practice Issues Among Staff to Generate Ideas About Existing or New Services to Help Clients Use a Computer Application
- Review Professional Standards on the Use of Computer Applications to Generate Ideas About the Quality of Services Provided to Clients

Install the System
- Choose Available Computer Hardware to Run the System or Install New Hardware for the System
- Install the Software
- Familiarize Staff with Computer Application Features and Operation

Decide How the Computer Application Will be Used in Delivering Services
- Decide How the System Can be Used With Other Assessment, Information, and Learning Resources
- Decide How Counselors, Paraprofessionals, and Clerical Support Staff Can Help Clients Make Effective Use of the System
- Decide How the System Might be Used Collaboratively With Other Service Providers in the Institution

Decide How the Computer Application Will Operate
- Decide How Counselors, Paraprofessionals, and Clerical Support Staff Will be Supervised
- Decide on the Number of Computer Work Stations Needed to Meet Demand for the System
- Decide on the Physical Location of Computer Work Stations for the System
- Develop Procedures for Scheduling Client Use of the System
- Develop a Plan for Evaluating Computer Application Effectiveness
- Revise Public Relations Efforts to Include the System
- Communicate Progress with Stakeholders and Administrators Who Can Provide Support
Implementation Model for CACG Systems

**Staff Training**
- Decide if Outside Assistance is Needed with Computer Application Training
- Develop a Plan for Staff Training
- Train Professionals, Paraprofessionals, and Clerical Support Staff
- Familiarize Administrators and Stakeholders With Computer Application Features and Use
- Evaluate Training Effectiveness and Plan Future Training
- Continue Staff Training as Needed

**Trial Use**
- Identify Trial Users
- Begin Trial Use of the System
- Observe and Interview Trial Users to Identify the Strengths and Limitations of Resources and Services that Support Computer Application Use
- Revise Staff Roles and Operational Procedures as Needed
- Continue Staff Training as Needed
- Continue Public Relations Efforts

**Operation**
- Operate the System
- Collect Evaluation Data
- Continue Public Relations Efforts

**Evaluation**
- Evaluate the Use of the Computer Application as a Service Delivery Resource
- Refine Resources and Services that Support Computer Application Use Based on Evaluation Results
Factors Related to Successful Implementation of Computer Applications

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Experience with the use of information technology in organizations has shown that a variety of factors contribute to successful implementation. These factors can be reviewed prior to beginning implementation in order to maximize the effectiveness of the process. These factors can also be reviewed during initial and on-going implementation in order to evaluate and improve the process.

Staff Factors
Encouraging staff participation in decision making
Clearly identifying decision makers
Encouraging a flexible approach to software integration that accommodates staff individuality
Conducting effective initial and on-going staff training
Providing training for support staff
Attending to staff resistance
Clearly defining staff roles
Providing for regular effective staff communication
Allocating adequate staff time to implementation efforts

Organizational Factors
Obtaining support from top management
Adopting a positive general attitude toward change, combined with a cautious attitude toward implementing new technology
Believing that a computer application has the potential to improve the performance of the organization
Anticipating potential organizational impact of a computer application
Integrating the computer application with existing organizational efforts
Utilizing a project coordinator
Utilizing the expertise of others who are successful users the software
Viewing the computer application as a means and not an end, e.g., a tool and not magic answer.
Linking implementation with strategic planning, including the mission of the organization
Avoiding software saturation, e.g. staff can not keep up-to-date with the range of software available

Process Factors
Utilizing a team approach to implementation
Adopting a concrete plan for implementation
Viewing implementation as an on-going process
Creating expectations of intermediate and long-term benefits from technology (as opposed to expecting immediate benefits)
Establishing a realistic timetable for implementation
Creating good documentation of roles and procedures (valuable for training new staff)
Viewing evaluation as part of implementation