The StudentPal program is a student tracking system developed jointly by the Multicultural Affairs program and High Technology Center at Glendale Community College, in Arizona. The program uses computer-assisted tracking to target students and various student characteristics and identify at-risk factors to improve the retention and success of multicultural/minority students. StudentPal also helps offset potential risks, as students can be targeted for pro-active intervention services. The system was designed to provide data on subsets of specific student groups to fulfill the needs of administrators, academic departments, faculty, multicultural student coordinators, and institutional researchers, making available analyses of stopout patterns, student course load trends, program enrollment fluctuations, retention rates, and dropout patterns. Specific factors that can be tracked with StudentPal include students who have low grade point averages and are older than a given age or are from certain zip code areas, as well as those who withdraw, have incomplete financial aid files, or have not attained their goals. The program has significantly enhanced the fulfillment of the objectives and initiatives of the Multicultural Affairs Program. In addition, once the program was in place, an early warning and retention system was developed to facilitate faculty referrals of potential at-risk students. StudentPal hardware and software requirements and a sample early warning form are included. (AJL)
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"TRACKING/MONITORING PROGRAM TO ENHANCE MULTICULTURAL STUDENT RETENTION"

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Technology Support of Student Services

"TRACKING/MONITORING PROGRAM TO ENHANCE MULTICULTURAL STUDENT RETENTION"

Program Abstract:
The magnitude of student numbers (actively enrolled) can make it difficult to assure individual assistance, on-going contact and support to each and every minority student. Therefore, there is a need to be able to monitor, track and document student development and success.

High technology computer-assisted tracking does provide the ability to be able to target/focus on students and the various distinct characteristics of students. Also, at-risk factors can be identified, provided the technological ability to help offset the potential risks, as the students can be targeted for pro-active intervention services.

“Early Warning” systems and their subsequent intervention can be put in place and can contribute to helping stabilize the students and their enrollment and educational sustainment. A technology innovation utilizing a computer database has been developed to help enhance the goals/objectives and initiatives of the Multicultural Affairs Program.

The Tracking System helps to manage all of the minority/multicultural student files, develop cohort groups to focus resources, and provide the ability to track individual students and manage and store individual records. In addition, the computer inquiries can assist the Program in quickly accessing updated/current student files by any category which has been established by the system.
The technological innovation is also networked with the central student information system, updated nightly, and assures current, valid information on the student files.

A merge-mail and word processing interface capability assures the ability to be pro-active in identifying students and providing timely applicable and prescriptive services that will contribute significantly to student retention.

**Historical Overview of Technology Assistance to Student Services**

Institutional Effectiveness initiatives and institutional “self study” efforts as well as accrediting visitations by the North Central Association, and actual prior program initiatives by the Glendale Community College Multicultural Affairs Program were factors in recognizing the necessity to “be able to document “student academic achievement”.” It was necessary to develop program and institution-wide initiatives to look for opportunities/challenges to improve services to students and help the students accomplish their educational objectives. The Multicultural Affairs Program researched “minority student retention” publications and higher education related initiatives. The intent was to establish a starting point for studying the problem as it related to data and information to track/monitor students.

Components/factors contributing to the problem with the data were analyzed, efforts were made to determine the possible options to proceed with technological systems analysis, identifying technological resources and individuals who could understand the need for technology assistance. Necessary connections were established between technological resources assistance and student support services.

The initiative was to enhance student development, and “student retention” Crucial data and information needs were outlined to initiate targeted and more successful student retention efforts.

Tracking development activity was prior to accreditation and visitation evaluations and did result in data initiatives to implement program assessment “initiatives” related to institutional effectiveness. Therefore, technological system analysis assistance was sought out and obtained from the college “High Technology” Center.
### Technology Support of Student Services

A programming and systems analysis professional was identified, Mr. Miguel Corzo, an Instructional Programmer; who, in turn, was partially released from operational duties to:

- Conduct a study as to the feasibility of a “tracking system”.
- Collect data and information on tracking and student services.
- Develop the working parameters for tracking/monitoring students.
- Develop a preliminary tracking system.
- Develop a model for “more effective monitoring of students and much more clearer and much more well-defined system for usage by the Multicultural Affairs Program.

**Historical Data/Information Obstacles** have been a fact of life for the Maricopa Community Colleges and the various units (colleges) of the System. Systems currently in-place have traditionally served the registration/enrollment and fiscal necessities of the various colleges within the system.

Data and information for specific programs, faculty members/academic divisions and administrative sections required specialized programming to access special reports, data and information.

The programming technical assistance was to facilitate retrieval of data from the central computer files and the Student Information form (admissions form and student records). As a consequence, ready, easily accessible data and information was/is an obstacle to help further the college institutional mission “to document student academic achievement”. At the same time, various programs (student support) and academic divisions all came to the conclusion that information and data on students was necessary to properly assess programs and develop improvement initiatives and efforts that would help students attain higher levels of academic achievement and success.

The student support programs desperately needed information on students so they could implement initiatives to help assure more student success and added that assurances that the programs could be more effective in serving students.
Focusing Resources:
As a consequence of "institutional effectiveness" efforts on the Glendale Community College campus, it was concluded that it was/is relevant/important to understand any/all of the distinct characteristics of the student population in order to focus/concentrate the resources of the college to positively impact "student development" and "academic achievement".

Therefore, monitoring students academic progress and the various "student profiles and characteristics" systematically permits programs to focus their student services efforts, utilize pro-active efforts to contact and serve students, and help assure their academic development and potential for success.

Program development:
It took approximately two and one-half years of systems development and programming to develop "StudentPal", a tracking/monitoring program to help enhance minority/multicultural student development and contribute to increased efforts for student success. Included within the development of the system was an intense study of "retention-related" research experiences", which included reviews of hundreds of research articles on "student retention" in higher education and very recent research topics on technology support for student support programs and program experiences were included in the development of "StudentPal", from the Multicultural Affairs from the Student Support Program.

The positive result of the comprehensive study is a system that does provide the necessary information and data in an easily accessible mode, translates the data and information into a relational-oriented data base which is program specific for functional use by the Multicultural Affairs Program: The end result is the specially designed "StudentPal" system and is profiled as follows under the category "StudentPal" in Support of Institutional Effectiveness.

"StudentPal in support of Institutional Effectiveness"
StudentPal was designed to support student enrollment, recruitment and retention efforts. Its main objective is to track and monitor at-risk students. There is an internet downloadable demo version of StudentPal that runs under Windows. It is a slightly earlier version than the current StudentPal, but the differences are minor.
Technology Support of Student Services

There are also written short descriptions of common activities accomplished by StudentPal and illustrations with pictures of the actual StudentPal screens. The hardware and software requirements for this program are consistent with those required by current relational databases operating in a graphical mode.

**StudentPal highlights:**
- Helps faculty and administrators monitor student performance
- Allows any user to make full utilization of legacy data
- Enables the user to focus on students who need help
- Provides a way to track student contacts
- Helps identify students at the point when they become at-risk
- Provides access to data any time of the day without impacting Vax.

*(Central computer) resources*

**StudentPal can address the following data needs:**

**Administrator needs:**
- Analysis of 45th day enrollment data for state funding
- Analysis of current enrollment
- Course analysis (grade distributions, average sizes, etc.)
- Faculty information by course, department
- Room scheduling
- Degree programs analysis
- Identify lost FTSE (full-time equivalent funding mechanism)
- Track incomplete financial aid files of students
- Obtain instant feedback on student performance term by term
- Record all contacts with students, referrals, consultations and materials provided
- Record contacts with prospective students in support of recruitment efforts
- Analyze communities and schools contributions to enrollment based on existing data
- Analyze assessment test scores by cohort, day, evening, or community
- Track students by course, section and term
- Set goals for students
- Study withdrawal reasons
- Monitor student retention and success in sequential courses
- Identify at-risk students by any user-defined criteria
- Automatic feedback upon student withdrawal
- Stay in touch (pro-active contact) through automatic mailings and follow-ups
Technology Support of Student Services

- Ensure correct student enrollment based on assessment information
- Identify students eligible for scholarships
- Track and monitor students enrolled in developmental courses

**How can StudentPal help?**
Following are scenarios that indicate how StudentPal can improve service to the student population.

- **Faculty members** can create a group of students to track based on the classes they are teaching. Once the groups are created, faculty can obtain any information on the students in support of retention efforts. Custom letters can be sent, goals can be set (which are automatically monitored by the system), and office visits, referrals, and consultations can be tracked. StudentPal can also help a faculty member identify grant candidates based on grade-point average (GPA), hours completed, major, ethnic group, etc. Potential tutors can also be identified as well as transfer students. StudentPal provides faculty members with a tool to help students succeed.

- **Student Advisors** can create a group of students they work with on a regular basis. The advisor can then quickly access a student profile prior to a visit, obtain past contact information, record materials provided to the student or advice given, provide choices and guidance to the student based on past class performance or admissions information, generate follow-up letters, set goals for students and make recommendations based on collected data that moves the advisor closer to the student. Assistance required by a student upon admission can be easily identified and could help an advisor understand student needs. A comprehensive list of student support programs are available in StudentPal to assist with advisor awareness. Assessment tests scores are also available to assist advisors with course placement and educational planning.

- **Multicultural Students Coordinators** can create a group of minority students from critical zip codes. The coordinator can then focus on that group. StudentPal will quickly generate student profiles (performance, withdrawal rates, and enrollment figures).
Custom letters based on the characteristics of the area can be sent to the students. Recruitment efforts can be recorded and matched against enrollment figures for that particular area. Zip-code information can also be used to assist students with carpool arrangements. StudentPal can help the Multicultural Affairs Program manage and serve the 4,000 plus actively enrolled minority students to focus resources and efforts on at-risk students. It can also help identify incomplete enrollment processes. Cohort groups based on ethnicity, student characteristics or needs can be developed to assure student stability and retention.

- **Instructional/Academic Department Chairs** can easily create a group of students who are enrolled in a certain degree program. Students can then be monitored for success. Information on grants, job opportunities, transfer requirements, and course schedules can then be provided to the students. Automatic mail to detail program changes and new course offerings can then be generated.

- **Deans** can use StudentPal to generate information on courses. Faculty loads, room availability from course cancellations, number of students per course, number of students on waiting lists, courses per building, room utilization, and average withdrawal rates per course can all be easily generated by StudentPal. Many types of statistical information on enrollment and retention are now possible. Most of the Glendale Community College databook reports will be available using StudentPal. These reports can be generated by the user any time of the day against 45th day data, current enrollment or pre-defined student cohorts. Enrollment figures by day, evening, full-time, part-time, new, continuing, former, recent high school graduates, high schools, and enrollment intent can be easily created with StudentPal.

- **Data analysis and institutional researchers** can use StudentPal's Ad-Hoc queries to retrieve information on nearly all fields of information stored in our current student information system.
Ad-Hoc queries on admissions information, course information, term information and degree program information are available in StudentPal. In addition, interactive tools are available for the more advanced user to query StudentPal.

**Some potential analyses available with StudentPal are:**

- **StopOut**
  - Identify patterns of interrupted enrollments
- **Load patterns**
  - Study effects of overloading, term-to-term loads per student, load failures.
- **Program studies**
  - Identify what programs tend to lose students and when
- **Retention**
  - Identify attrition rates for different kinds of students
- **Retention rates**
  - Identify students enrolled in term X who are still enrolled in term Y.
- **Dropout**
  - Identify students failing to register and reasons why.

- **Employees in charge** of monitoring at-risk students can use StudentPal to automatically monitor any number of at-risk factors.

StudentPal will then check the registration system every night searching for students who meet that criteria.

A few factors that can be tracked are:

- Students with less than 2.0 GPA and older than a certain age
- Students who withdrew from a certain percentage of their total load
- Students withdrawing from all classes
- Students with incomplete financial aid files
- Students not attaining established goals
- Students on any administrative hold
- Students with low GPA from zip-codes far from GCC
- Students purged for non-payment
- Students defined as being at risk by the Early Warning System (EWS)
- Students adjusting course schedules
- Students enrolled in developmental courses
- At-risk adult re-entry students
- Students registering during late registration
- Students with unacceptable course loads
- **Proctor/faculty mentors** can create a group of students with whom they have been assigned to work and record faculty feedback information by means of the Early Warning System (EWS) in StudentPal. This helps identify students who are having difficulties or those who require some form of constructive and positive early intervention. The pro-active contact and follow-up also helps foster better teacher/student communication.

- **High Tech Center** managers can obtain information on the number of students for every class in the High Tech Centers, number of closed/canceled classes, and statistics on OE/OE courses.

- **Disabled Students Resources** can easily create a cohort of disabled students and quickly identify student disabilities. Services can then be provided to ensure student success. Custom letters providing availability of services and facilities can be sent to students.

- **Recruitment officers** can use StudentPal to obtain enrollment figures, success rates, deficiencies based on past course performance, assessment scores, and course preferences by high school or community prior to a visit. All this information can help advisement and recruitment efforts at Glendale Community College and surrounding high schools. Reports on enrollment and student performance can also be beneficial as feedback to neighboring feeder high schools. Recruitment officers can regularly generate reports of students who, for instance, were enrolled the previous semester and are not registered in the current term. This data can be used to provide one-to-one contact and follow-ups with students who may otherwise not enroll. Targeting this group provides a good understanding of the reasons why students fail to re-enroll.

- **ACE-Plus** (concurrent enrollment articulation program) can use StudentPal to create a cohort of current and/or prospective high school students. Developmental courses and success rate in any discipline can then be easily monitored. Term-to-term or year-to-year analysis can then be performed on existing cohorts.
• **International student coordinators** can use StudentPal to create a cohort of students on a certain type of visa. Contacts, services, follow-ups, student enrollment, and prospective students can then be tracked.

• **The Library** can use StudentPal to generate random lists of students based on course, load, department, GPA, or community. This list can then be used to administer surveys to target groups.

• **The Learning Assistance Center** can use StudentPal to identify new or former students who requested assistance with study skills, math skills, or English. Prior course performances, GPA, and assessment scores are all available to help the coordinator provide the best possible assistance to the student. Follow-up letters and appointments can be set with all students involved.

Many more functions, based on the department, faculty or administrator's needs, can be created using StudentPal.

StudentPal contains a very large number of custom reports to further support its Ad Hoc query capabilities.

These reports are meant to address complex data analysis needs and special reports needs including statistical profiles.

StudentPal's main strength is its ability to take 18000+ students and allow the user to focus on a small subset of the student population. StudentPal provides a mechanism for personalized attention to student needs. Programs are no longer limited by the accessibility to data. StudentPal brings data to the people who need it to make decisions.

For additional information, contact the Innovation Center or Miguel Corzo.

Background of Multicultural Affairs

The Multicultural Affairs Program major focus to:
- Initiate any/all efforts for minority student “retention”...
- Stimulate minority student enrollment through outreach efforts.
- Provide related “higher education” service to the community...

Included within the intent/goals of Multicultural Affairs are the Operational Objectives of the Program which are:

- to provide educational planning and advisement...
- to provide educational information on educational options...
- to increase the student’s knowledge of services provided by the college...
- to increase and enhance the students interaction, access and usage of the College Programs and services...
- to help increase the students’ knowledge of networking social and educational services...
- to help provide role models/faculty mentors as needed and necessary...
- to help increase and promote sensitivity and awareness among faculty, staff, peer advisors, and students about multicultural students and their educational needs and options...
- to assist multicultural students in adjusting to college life and understanding academic requirements/processes...
- to assist in transition adjustments from high school to college for recent high school graduates...
- to assist adult/more mature students in adjusting to college and helping...
- to assure their thorough orientation to programs and services...
- to assist in monitoring of academic progress and setting of educational goals/objectives, including strategies and time-tables as applicable...
- to assist students with personal, educational, or social problem (obstacles to education), and help initiate referrals as necessary and warranted....
- to assist multicultural students in referral to other offices and educational support programs...
**Organizational structure:**
The Multicultural Affairs Program is part of “Student Success Council” efforts of Glendale Community College to develop a new student development model. Therefore, the Program is now located within the Center for Information, Advisement and Registration (C.I.A.R.) and can be considered “as an integrated” approach to multicultural student services. (The Program offices are located strategically within the ongoing registration area, are visible and easily accessible, have a clear focus/emphasis, and is an integral part of the overall Glendale Community College enrollment services.) There is a focus towards multicultural student needs, with the intent to help assure that the students develop and become “expeditious users of any/all student services and complete their educational objectives.”

**Multicultural Affairs Program Goals/Objectives:**
The Multicultural Affairs Program developed general Program objectives for “Institutional Effectiveness” that could be measured/monitored to help assure student growth and achievement.

The Program goals are:

- **Student development**-to assist students with the development of personal and educational goals.

- **Student Achievement**-to provide services that will help assure the completion of individual educational goals.

- **Student retention**-services which help assure continued/sustained enrollment and continuing education.

**“Institutional Effectiveness”** implies that the institution intends to be educationally effective and wants to be at the forefront in efforts/initiatives that will help assure “student academic achievement.” Again, this magnifies the need to have information that can serve as a tool to focus the “human resources of the college” and to contribute to student development. At the same time, it is the very real need to be able to **assess and document “student development and student academic achievement.”**
Institutional Effectiveness Initiative:

**Goal:** To improve services to traditionally under-represented students to improve retention/success.

- Understand any/all of characteristics of target population to focus efforts for transition into college and student retention.

- Focus the resources of the program where they are needed the most. Be Pro-active in providing services and follow-up of identified target groups.

- Help assure sustained enrollment/educational development and student success by being able to intervene immediately.

- Assess the Effectiveness of the Institutional Effectiveness Initiatives, by utilizing and analyzing the information that is available.

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**Actual Program Experiences and Implementation (technology assisted)**

**Scholarship initiative:** American Chemical Society, Scholarship for minorities in health-related career fields. The parameters for the scholarship were set into a "StudentPal" Query which identified the Glendale Community College minority students who met the criteria. In turn, the students were contacted and provided the scholarship application and assistance with the scholarship form.

**National Hispanic Scholarship fund:** Again, the criteria for the scholarship was set and queries initiated to identify the prospective Hispanic students, such as full-time, 3.0 GPA, 12 or more credit hours completed, etc. The students were contacted and provided the scholarship application and assistance was also provided as well as letters of recommendation, etc.

**Non-registered students:** Fall 95, Spring 96, Current initiatives have utilized the non-registered student reports to contact students to urge them to register, offer assistance, and provide information and referral as well as individualized assistance.
Incomplete Financial aid files students: Once the students were identified, the students were contacted and urged to contact the Financial Aid Office to make sure that all of the necessary processes were complete in order to receive a financial aid award. This helped offset the economic obstacle to enrollment and help to assure follow-through in continued enrollment.

Developmental education students/late registrants, new students, etc.: Contacted the potentially at-risk students to make sure that the students knew of all the services available on-campus, the various resources they could access, and initiated general information and referral as needed, as well as provided individualized assistance to students.

Withdrawal students follow-up: Identified those students who had withdrawn from any/all classes and initiated a follow-up to offer assistance, provided guidance as necessary, and then attempted to contribute to continued and sustained enrollment (student retention).

Transfer Initiative: Identified those students who have accumulated the credits towards possible transfer, identified those students who indicated an intent to transfer on their Student Information Form, and contacted them about transfer opportunities/options. Also worked closely with four-year college representatives who help facilitate and generate actual transfer application by the identified students, including assistance will all processes.

Tracking/Monitoring System: To be able to monitor/track minority/multicultural students to help assure their student development, as well as having the ability to assess and document the success/effectiveness of the Program efforts.

- Needed a system that garnered centralized student information from central computers, downloaded it to a server, a PC hard-drive and re-structured it in a data-base system specifically designed for Multicultural Affairs at Glendale Community College.

What was needed:
- Information that is important to the Program to be able to serve the students more effectively.

- Understanding all/any of the student characteristics of the Glendale Community College minority population to help focus program resources.
Research related to at-risk students as well as Program experiences about minority/multicultural students was utilized in the development of the system and implemented into the system, such as:

- Students who have low GPA
- Students on academic probation.
- Students younger than 20, older than 30/40.
- Students who have lower placement test scores.
- Students who are enrolled in developmental courses.
- Students who are on financial aid and have incomplete files.
- Other at-risk factors/indicators, academic probation, etc.

Other factors to consider are:

- Students who have lower placement test scores.
- Students who are enrolled in developmental courses.
- Students who are on financial aid and have incomplete files.
- Other at-risk factors/indicators, academic probation, etc.

Additional capabilities information needed to help assure adequate and timely services, were:

- Ability to envision “Student Profiles” (a one-page overview of student’s academic history and progress) for individual students. This information can be very helpful in individual consultations with students to help plan an educational objective.

- A method and process to maintain and update contact statements about services/information, providing the ability to document services and prepare reports. This would permit tabulation on any all services at any time and for any timeframe.

- A way to establish “cohort” groups (identified and targeted student groups who have common student characteristics, age, recent high school graduate, stated program major, etc.) for focused services.

Source: “Between a Rock and a Hard Place” The At-Risk Student in the Open-Door College, Dr. John E. Roueche/Dr. Suanne D. Roueche, 1993.
Technology Support of Student Services

- **Cohort groups examples:**
  - Financial Aid
  - Lower test scores
  - Adult re-entry
  - Academic probation
  - Recent High School Graduates
  - Students from certain communities/schools

- An "early warning and retention system" system for immediate faculty referrals to retention advisors for timely and *pro-active* contact and intervention to help assure sustained enrollment.

**Withdrawals:** do not necessarily mean something *negative* occurred. It could mean that the objective has been met or employment opportunities have arisen. The system does provide updated information on withdrawals to make sure that continued/sustained enrollment can be a possible result.

- **Point.** We really need to know if we can leverage Glendale Community College resources to help in the sustained enrollment.

**Case Management:** The individual advisors and "retention" professionals can have *regular case files* of individual students and have contact/services documented and have the ability to generate documentation reports. Again, the student referral and intervention can come from targeted focus groups of the more at-risk student population.

*The case management system* will be developed and implemented, where identified cohorts of at-risk students will be identified, contacted, and provided assistance that will contribute to their continued enrollment. The on-going students contacts are intended to not only help the students in their enrollment, *but also to identify need areas of the individual students to be able to utilize resources within the campus support programs to help assure their continued enrollment.*

External community resources will be identified and utilized as individual students needs indicate. The types of contacts and services provided will be documented for follow-up and reporting purposes. It is anticipated that tracking any/all services provided will provide added indications of student needs and *help in allocating adequate personnel and campus resources towards those indicated need areas of students.*
Baseline information on students will be developed through the tracking system to assess "student academic achievement" by implementing **core indicators of institutional effectiveness** that necessitate the establishment of **baseline data** and **"student cohort"** groups to assess overall student progress/success. **Success in subsequent coursework** is one indicator that will be analyzed over-time, as will overall **grade-point averages** and **number and rate who transfer**, as well as their transfer graduation rate and grade-point-average, etc.

Again, cohort groups can be developed and maintained, such as developmental education students, Financial Aid applicants, tests scores categories of students, recent high school graduates (from certain schools and communities), adult re-entry students, part-time/full-time students, and including groups of first-generation college students.

The established cohort groups can be assessed to determine the need areas and develop pro-active student development strategies, which will help assure student sustainment and "student academic achievement."

Resources can be allocated to assure the maximum and effective utilization of staff resources focused in the areas which require more intensive one-on-one contact. Planning strategies involving various student services components will help determine the areas of concentration as it relates to the various at-risk cohort groups.

**“Early Warning and Retention System”**

A retention Committee at Glendale Community College developed a form/process to facilitate faculty referrals of potential **At-Risk Students**, to a clearinghouse for intrusive intervention by retention advisors to help stabilize the potentially at-risk student. The Form can be easily filled out/completed, can be forwarded to the appropriate follow-up source, and quickly administered to intervene quickly/effectively. A replica of the “Early Warning Form” is included for individuals of programs to replicate to initiate student retention efforts.
FACULTY MENTORING PROGRAM
GLendale COMMUNITY COLLEGE

"EARLY WARNING AND RETENTION SYSTEM"

Glendale Community College, in an effort to broaden its services and increase student retention/sustainability and enhance student success/achievement, has developed a warning system for use in helping students, faculty members and student support programs.

The purpose of this Early Warning and Referral System is to identify problem areas of individual students and to connect those students with the appropriate College Support Services and initiate timely intervention to help keep students on-track in their educational program.

The report/referral will be held in strict confidence: IT WILL NOT RESULT IN THE DISCIPLINE OF THE STUDENT.

The Multicultural Affairs Office and/or the Center for Information, Advisement, and Registration (CIAR) will serve as a clearinghouse for intervention and referrals should be addressed to that Office. Multicultural Affairs (CIAR-126), or the CIAR, in care of Jose Mendoza or Ray Simpson.

Date: ____________________________
Name of Instructor: ____________________________
Class: ____________________________
Student's Name: ____________________________
Nature of problem: (Please check where applicable)
( ) Excessive absences in class
( ) Poor progress in classes
( ) Possible health problem
( ) Possible emotional problem
( ) Career/Vocational counseling needed ( ) Other (Please specify below)
Remarks or recommendations for action: ____________________________________________

Please check if you would like a follow-up or call on this matter/referral. ( )

The actual Form is included for those willing to prepare to invest and develop similar systems or replicate the system.

Summary/Closing Comments

Statements

The present and future success of higher education will/do necessitate enhancement/enrichment of outreach services to the community, adequate and appropriate individualized services to students, the comprehensive ability to assess the effectiveness of program initiatives directed at students from the academic divisions and the student support programs. The efforts need to be cohesive, involve increasing levels of collaboration, and most important, to impact student development and student academic achievement.

Resource for students

The type of student which is presently attending higher education will continue to change; the nature of communities as well as the increasing global aspects of local regional, state and national economic systems demands that higher education produce many more students with much higher level skills, with productivity quotients that can be classified as "lofty" by yesterdays comparisons.
Therefore, technological assistance to any/all program efforts, higher education systems, and regional, state, and national initiatives will be needed to help assure equitable and well-researched strategic planning that will help with the allocation of fiscal and human resources which will coincide with the very real and demanding realities affecting higher education today.

Technical/computer specifications required to be able to run/implement “Student Pal” program:

Student Pal Hardware and Software Requirements CPU: 486-66 DX2
- Memory: 16 MB RAM
  - Hard Disk: 500 MB
- Network Card: Any
  - Monitor: 15” color monitor

Recommended configuration:
- Pentium 90
  - Memory: 16 MB RAM
- Hard Disk 1.0 GB
  - Network Card: Any
- Monitor: 17” color monitor

Software requirements:
- End-user Stations

The following list details hardware and software configurations to run Student Pal. This list assumes that a shared printer will be available for users of Student Pal.

Student Pal runs on a Power-Mac provided it is equipped with a DOS compatibility card. Software emulation on the Power-Mac is too slow at present to support Student Pal.

Please note that Student Pal makes extensive use of the right-mouse button. This functionality is not available in version 1.0 if running Student Pal from a Power-Mac. Also 16 MB of RAM needs to be present in the DOS compatibility card.

Minimum configuration:
- CPU: 486-66 DX2
  - Memory: 16 MB RAM
- Hard Disk: 500 MB
  - Network Card: Any
- Monitor: 15” color monitor

Recommended configuration:
- Pentium 90
  - Memory: 16 MB RAM
- Hard Disk 1.0 GB
  - Network Card: Any
- Monitor: 17” color monitor

Software requirements:
- Windows 3.11/DOS 6.22
  - MS Office
- QVTRNET
Technology Support of Student Services

**Recommended equipment brands:**
- Hard Disk: Quantum 1.0 GB ATA-2 QUFB 1080A
- Network Card: 3COM 3C5XX
- Video Card: Diamond Stealth 64 w/ 2 MB DRAM
- Monitor: 17" Samsung 17GLi

**Database Administrator Station:**
This PC does not need to be dedicated to StudentPal. The PC will be used mostly at night to run the download and extraction programs for new SIS data. It could also be used to backup the Novell server.

**Recommended configuration:**
- CPU: Pentium 90
  - Memory: 16 MB RAM
- Hard Disk: 1.0 GB
  - Network card: Any
- Monitor: 15" color monitor
  - Tape Drive: 4-8 GB DAT Dr

**Software requirements:**
- Windows 3.11/DOS 6.22
  - Paradox for Windows
- MS Office
  - QVTNET
- Novell backup software

**Campus requirements:**
The following must be available on your campus to run StudentPal:
- Ability to run FOCUS jobs against SIS data.
- Ability to move files from a VAX to a Novell server via FTP.
- A Novell server with 2.0 GB of free disk space.
- Network connections for all users of StudentPal.

**Campus Novell Server Configuration:**
Any Novell server can be used to run StudentPal. StudentPal queries and reports are very demanding on the server. A faster server will help expedite requests. Most of the emphasis should be placed on I/O performance and memory. A Pentium 90 with 32 MB of RAM, a wide SCSI controller and a 7200 rpm wide SCSI drive will provide adequate performance. Adding an additional 32 MB of RAM will improve performance. The StudentPal load can also be distributed across multiple servers. This keeps users running queries and reports from impacting users reading or performing data entry functions.
Minimum configuration:
- CPU: Pentium 90
  - Memory: 32 MB RAM
- Hard Disk: 2 GB SCSI Wide
  - Network card: PCI busmaster
- Monitor: Any

Recommended configuration:
- CPU: Pentium 90
  - Memory: 64 MB RAM
- Network Card: PCI busmaster
  - Monitor: Any
- Hard Disk: Dual 2 GB SCSI Wide drives
- Hard Disk Controller: SCSI Ultra-Wide

StudentPal was designed to support 35-40 active users.
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