

# Improving Retention Rates in an Basic Education Evening Math Prep Course

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**Question:**

**Would using e-mail to build a sense of community among BE students improve retention rates by 10%?**

**Abstract:**

**Participants:** Fourteen students registered in the evening math prep course I teach at SIAST, Regina. It began January 21, 2009 and ended April 13, 2009. Students attended a 3 hour group-taught class two evenings (Monday/Wednesday) a week.

These students all had family and/or employment responsibilities. All these students had been away from an academic setting for more than five years, one as long as 20 years.

For the January 2009-April 2009 class (my action research study) twelve students completed the class for a retention/persistence rate of 85% *suggesting an improvement in the retention rate of 50%*.

In addition to teaching in the evening program, I am an accredited Math A30 instructor in the SIAST Wascana BE Program (Day).

**Research:**

Although there is a wealth of literature that suggests incorporating retention strategies into academic upgrading and vocational programs could assist basic education learners in becoming more successful in their programs, there seems to be little agreement on the definitive strategy for retaining students – especially in mathematics courses. Most would agree that there are a number of factors that contribute to student success. The literature reviewed, although not exhaustive, is aimed at acquiring knowledge in two areas: 1) characteristics of the Adult Basic Education (ABE) learner and 2) results of similar interventions used to improve student retention.

### Profile of the Adult Basic Education (ABE) Learner

A number of studies (Grossnickle, 1988; Collins & Roberts, 1985; Moore and Jackson, 1983; Sainty, 1971) and direct observation revealed that many ABE students are disadvantaged educationally, financially, or socially and frequently in all three areas. Characteristically, ABE clients: have low self-esteem and lack confidence; have poor problem solving and coping skills; often lead crisis-oriented lifestyles; display self-defeating attitudes; and have a history of failure in relationships and employment that often relate to drug or alcohol dependencies involving either themselves, partner or family members. Literature concerning disadvantaged adults suggests that incorporating retention strategies into academic upgrading and vocational training programs will assist the students in more fully developing their educational, vocational, and personal potentialities.

Collins, M. & Roberts, J. (1985). *The Saskatchewan skills development program interim report*. Regina, Saskatchewan: Saskatchewan Government Printing Office.

Grossnickle, D.R. (1988). Achievement motivation skill training: Assisting unmotivated students. *NASSP Bulletin*, 72, 24-27.

Moore, L. & Jackson, S. (1983). Adult basic education: The Kentucky experience. (Report N0. CE 039 177). Kentucky: Murray State University. (*ERIC Reproduction Services* No. Ed 246198).

Sainty, G.E. (1971). Predicting drop-outs in adult education courses. *Adult Education* 11, 223-230.

### Results of Similar Studies

Research indicates that many relationships exist with regard to retention of learners and that no one variable can explain persistence in a program. As the literature seems to suggest there are many areas that are ripe for exploration. One such area involves the effect of various classroom practices on student learning and persistence. A cursory look at the literature reveals that researchers such as Tinto (1997), Merriam & Clark, (2006) and Brier, Hirschy & Braxton (2008) have all grappled with the factors influencing retention, more specifically, the impact of learning communities on retention.

Brier, E., Hirschy, A. & Braxton, J. (2008). The Strategic Retention Initiative: Theory-Based practice to Reduce College Student Departure. *About Campus*, 13 (4) 18-20.

Merriam, S. B., & Clark, M. C. (2006). Learning and development: The connection in adulthood. In. C. Hoare (Ed.), *Handbook of adult development and learning*. New York: Oxford University Press.

Tinto, V. (1997). Colleges as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 68, 599-623.

### Process Involved

Before the course started, I discussed the methodology of this action research project with the SIAST Wascana BE program head. Approval to conduct the study was given and similarly students agreed to be part of this study.

Then as part of a “Get-to-Know” exercise at the beginning of the course, students were encouraged to exchange e-mail addresses with at least two other students in the class- their “e-mail buddies”- as well as with the instructor.

All 14 students provided the instructor with email addresses. Students were sent a “welcome to the course” e-mail after the first class. Each time that students were absent from the class the instructor e-mailed them and provided words of encouragement as well as information on the material that was covered during the class. As part of the e-mail, students who had missed class were encouraged to contact their email buddies for their take on the class. Students were also directed to websites that could be useful for the particular area that they missed. A set of photocopied notes was provided for the missed lesson. The instructor kept very brief field notes on the e-mail responses from students.

Informal class discussion occurred between the students and the instructor regarding what factors motivated them during the 13 week class.

Students were asked to fill out a feedback (see attached) form at the end of the class asking the students to rate the usefulness of this approach. To ensure anonymity, the instructor asked for a student volunteer to collect the completed feedback sheets and submit them to the program head. Students were assured that the feedback sheets would be viewed by the instructor after the final grades for

the course were submitted to the program head.

**Findings:**

Historically, there is a 35% retention/persistence rate for the Math Prep course. The September 2008 –December 2008 class average mark was 75% with a median score of 70%.

For the January 2009-April 2009 class thirty-five individual e-mails were sent by the instructor to students who missed class. This number was over and above administrative e-mails that were sent to the group. In every case students replied to the instructor's e-mail. Feedback sheets were completed by 10 of the 12 students.

For the January 2009-April 2009 class twelve students completed the class for a retention/persistence rate of 85% suggesting an improvement in the retention rate of 50%. The class average mark was 77% with a median score of 78%.

Responses from the feedback sheets attributed most of the students' success to personal motivation, flexible testing structure, e-mails from the instructor and the instructor's classroom management style.

**Reflections/  
My Suggestions on  
Future Research:**

The results of this study seem to reflect those found in the research. Students did not attribute their success to any one factor. Therefore, it can not be said that sending e-mails is the sole factor for increasing the student's sense of community and improved retention rate. For the most part the two groups (2008 and 2009) were very similar in terms of ability and background. E-mailing did play a role but not in the way that was expected. Students seemed to rely heavily on the instructor's e-mails when they were absent from class not on each other which was anticipated. Intentional, structured and proactive support on the part of the instructor seemed to play more of a role than relying on building a learning community through e-mail.

However, I can not rule out the value of the "e-mail buddies" because informally one student (after the course had ended) stated that 3 "email buddies" contacted her for missed notes and that she was aware that two other students used e-mail to set up a study session prior to an exam. These observations were not reported on the feedback sheets. I would recommend that if this approach were to be tried by other instructors that the feedback questions be structured to solicit more specific information than whether or not the students felt that "e-mailing each other builds community".

The instructor may want to define examples of students' building community.

**Sharing the  
Research:**

This study will appear on the SABE/SLN website