

Project Title: Promoting a healthy lifestyle among Adult Basic Education students to increase retention and improve student in-class performance through healthier diets and exercise (Cycle #1)

Researcher Name(s): Lesley Weiman, Lea-ann Maier, Aileen Pofferno

Delivery Organization: Northwest Regional College

Project Location(s): Northwest Regional College, North Battleford

E-mail Contact for Further Information: leslie.weiman@nwrc.sk.ca

Abstract (brief overview): We, the Adult Basic Education 10 instructors at the Northwest Regional College in North Battleford, wanted to see if improving students' overall health would improve their success rate; therefore, improving retention. We found that students were often sluggish, tired, and unable to focus most days. Some of the students would stroll into class, usually late, and minutes after arriving they would make their way out to the vending machines for breakfast. Breakfast would consist of a bag of chips, or even skittles sometimes, along with a pop or energy drink. The observations seen in this report were based solely on my own observations. Keeping in mind that I had no idea how their sleep was the previous evening, or if they were having a rough time in their private lives, I observed high levels of distractibility; or rather, a lack of concentration. Students were quickly and easily frustrated, and a couple of my students would actually fall asleep in class on a regular basis. We wanted to see if having healthier options for snacks, such as having veggies instead of chips, water to drink instead of pop, and an active break, would help improve their sluggish states and ultimately improve their performance and retention rates in the program. While we definitely want to go to a second cycle next year, we did see positive results, we did see positive

changes in student's performance and we most definitely got overwhelmingly positive feedback from both the students and the staff involved. .

The Question: Will providing healthier options promote an improvement in students' in-class performance and a 10% increase in program retention?

1. **The Intervention (including Baseline and Timeline):** We, the Adult Basic Education 10 instructors at the Northwest Regional College in North Battleford, started our project/intervention on the 23rd of March and wrapped everything up on the 15th of May.

There were two ABE 10 classes participating totaling 31 students. We gave each student a baseline survey (see attached) to get an idea of what their lifestyles were currently like, and what their opinions were on healthy living. We then brought in two water dispensers to each ABE 10 classroom and supplied each student with a college water bottle. Next, we implemented our veggie program. This program provided vegetables for sale at the morning break.

We set this program up such that it would fit into the, Life Works portion of their curriculum. This is part of the Saskatchewan curriculum whereby learners have the opportunity to “gain skills, knowledge, and attitudes related to: lifelong learning, personal growth and development, and developing connections to community life and/or the labour market.”

We divided the students into 8 groups of 4. Because I had both classes at some point during the day, I just put a sign-up sheet in my room where they were to put their name down for the week they wanted to work on the project. Each group had one week of duties related to the project, and then they were done. This worked out for us as we only had 8 weeks left in the year: one week in March, four in April, and three in May. This will be different next year as we will have a full year to work with. This will then mean that each group will have to help more than once.

HEALTHY FOODS AND THE CURRICULUM:

Prior to the implementation, we purchased the necessary tools that would be needed (4 cutting boards, 4 knives, 3 strainers, carrot peelers if you don't get the pre-peeled, two large receptacles to put the vegetables in once chopped and washed, snack baggies, gloves for handling the veggies),

The duties, carried out by both instructor and each group of students, consisted of:

- **Mondays** we would go to No Frills grocery to purchase the vegetables for the week. The vegetables that we chose for the week would depend on what was on sale that week. We made sure we always had carrots and celery though, as they are usually fan favourites, and then we would add other vegetables depending on price. Sometimes this would be broccoli, or baby tomatoes, or peppers, or cucumber (cucumber has to be bagged on its own though, too watery). The shopping was done Monday morning, and usually took about 30-45 minutes. We justified the trip to the store with the students during class time, because it was touching on the “process strands” in Math.

For example in the “Problem-Solving/Decision-Making” strand, they would have to take a look at the budget we have for the week and, from there, make decisions based on prices of the vegetables that week as to what veggies we would be purchasing. If some of the typical veggies were priced too high that week, they had to solve that problem by determining which ones were more cost effective for that week and get those instead. In the “Communication” strand, they were to understand how to estimate the total cost of the purchases during the shopping to ensure we did not go over budget. In the “Career/Consumerism” strand, they needed to be able to see how we work with decimals (\$) in the real world, and maybe then understand why this area is so important in their program, making it more authentic for them.

It turned out that using the vegetables and shopping questions involved *seemed* to be a better—more authentic— way to teach these strands than what we had been doing before. This appeared to be an “unintended outcome” and when we run this study again next fall (cycle 2), we will try to get data to be able to assess this strategy better.

After the shopping was completed on Monday, we would store the veggies in an extra fridge we have access to here (important to have that cold storage).

- **Tuesday** mornings, the same group that came shopping would head downstairs to the staff lounge with me and the other ABE instructor to wash chop and bag the veggies. It is important that at least one person in the room has their Food Safe ticket. This ticket is a program whereby

students learn about micro-organisms and safe food-handling practices to prevent foodborne illnesses, maintaining a safe and sanitary work environment and ensuring quality in foodservice operations. We used “snack” baggies as this was the perfect size and you could not overfill them and it was a perfect amount for a “snack.”

- Once we were done prepping the vegetables, they would be placed back in the fridge until break. Each of the four students was assigned one morning break to sell the veggies. They were sold for 50 cents a bag. The students and staff thought that this price was reasonable. We set our table up right beside the vending machines in hopes to change some minds when it came to what they wanted for a snack at break 😊. We started the program without veggie dip (ranch dressing) to go along with it, but we realized soon after the implementation of the program that it was too much of a jump to go from chips to plain veggies. As soon as we brought on the dip, our sales went up (you may want to increase the price to 75 cents, depending on your costs).

PHYSICAL ACTIVITIES AND CLASSROOM PERFORMANCE:

- As for the physical activity portion of this action plan, it would have been better run with pre-set days for the walks/runs. We planned the activity part to fall 5 minutes before break, during break, and 5 minutes following break for a total of 25 minutes for the whole break period. Sometimes we would be so enthralled in instruction we wouldn't get away, or sometimes the weather wouldn't cooperate so it wasn't as consistent as I'd liked. The majority of the students were very receptive to getting active; however, they were not interested in pushing their limits. They preferred to just walk the track, rather than trying to get

their heart rates up for a good solid 20 minutes, which is what my ultimate goal would be for them next year. This is one area I definitely need to refine and keep working at next year. I wonder if having a more structured setting/schedule would help? Going out to the track to walk/run was just going for a walk to them. If it were a gym setting or maybe even an indoor track, perhaps they would take it more seriously. I would keep with it next year exploring the best way to manage this for real exercise and work to improve consistency.

The Findings: The findings from the life style surveys were that most of the students had a very typical North American diet, sometimes eating out, sometimes consuming alcohol, trying to exercise on occasion, etc. What I thought was interesting was that almost all, if not all of them, valued their health and were very receptive to our mission!

Our findings as of May 13, 2015, were that the program is something that the students and the staff want to see return next year. The staff and students felt that it should have started earlier in the year and they noticed that they, along with some of their peers, were making healthier choices because the choices were available to them, or perhaps they were too embarrassed to go get the bag of chips because we were constantly promoting and discussing healthy living. This too needs further study. The water dispenser was right there so it was easier to choose water than pop; the veggies were right beside the vending machine so it was easier to spend their money on the veggies. They also noticed that they stayed fuller longer after eating a bag of veggies rather than a bag of chips.

We were also seeking to see if the sluggishness had changed. Were the students able to perform better in class after implementing the healthier food and physical activity interventions? What we observed was students did not appear as sluggish and definitely were more focused throughout the day. That being said, it was very difficult to tell if they were performing better in their studies because of this action plan. There are a number of reasons why we found it difficult to really know. First, it was such a short period of time – 2 ½ months really—and because I had just started at the college in March, I did not have much background and did not really know how their performance was at the beginning of the year. Second, it was just the beginning of spring when this program was implemented so we do not know how much the weather may have played into their less sluggish states.

Also, we could not force these people to do any of this, so it was hard to know who was drinking water regularly, who was eating veggies regularly and if they were doing this consistently, did their performance actually improve as a direct cause-effect result? A more careful observation of who engaged and what the apparent result was is needed next time. Further, it would be helpful to consider having the students keep journals so we could see their own sense of health change and alertness in class.

Finally, there are always outside variables that we cannot control. For example, we have no idea of knowing whether or not those who did improve in the last couple of months improved because they had the healthier options, or because they were able to find reliable daycare or had less stress at home, etc. What we did learn, and what we can say we observed for sure, was that there was a great deal of discussion around healthy living and healthier options. I can say that

those couple naysayers (not very many) were drinking water and eating veggies at points during the last 2 ½ months despite their grumbling. I can say the students were all very thankful that we started this program, not just the level 10's, but all of the levels, skill programs, and staff. I can say with certainty that they want this program to return next year, and it will.

I can also say that I know that our Adult 10 program had a 48% completion rate this year, and next year my goal is 58%—the 10% increase we started out to achieve. As for program retention improvement this year due to the program, I do not know if the program itself promoted program retention as it is the first year and first cycle of of implementation. I would have to take a look at retention numbers in previous years (seasonally adjusted) vs. retention this year and perhaps next year as well. I do know that we had 31 students in the program when we started this veggie/physical activity program and we will have 25 coming back in the fall. Three students quit during the program, one transferred schools, one was asked to leave after progress reviews and one moved. I do feel as though the attendance improved for the most part, again, I would need to take a look at attendance at this time of the year in comparison to previous years. I do know that before the program was implemented I had a day or two with as little as one student in attendance. Again, I am not sure if that was because it was “payday,” but I didn't have the experience of that low of an attendance after starting the program. I am fairly new to ABE, so I am not exactly sure if these numbers are good or not. However, the majority agreed this action research project showed promise and I do want to try it again in the next academic year.

Discussion and Recommendations for other Practitioners: This was

absolutely a worthwhile project. This was not only my conclusion but comments from students were such as: “Why didn’t we do this earlier in the year,” “I hope you run this program again next year”, “It’s easier to make healthy choices when they are available to you” and from instructors: “It’s nice to see a positive influence such as this program”, “I hope you do this again next year”.

2. If there is concern that doing such a project takes more time, it does not take any time outside of school hours aside from the original purchase of the tools needed for the prepping. And the cost of those tools came from the money fronted to us, from the college, in the very beginning of the project. We would recommend having the veggie program go all year long, and will be doing that next year. As well, we would recommend the active breaks to go all year long, and we are in the process of finding a facility for the next coming winter, as we will not be able use the outdoor track once the winter months are upon us. Lucky for we are right next to a high school, and we are hoping to gain access to their gym.
3. Finally, I watched students purchase multiple bags of veggies to take home to their families, which alone made it worthwhile. It opened up opportunities for many, many discussions around health living, not just formally in the classroom, but informally during our walks too.
4. And, next year, I would like to have students keep journals to see if their home life changed in any way as a result of the project. If families made healthier choices because of the project and what their own families—

immediate and extended—thought of making such healthy choices.

5. If there was any concern in regards to complaints about losing their break time to have a smoke, I would simply allow them to have their smoke either on the way to the track, or on the way back from the track, but not while we were walking the track. For the veggie program to run smoothly I would make sure to have at least 4 in each group and if they have to do the work more than once, it will just be more volunteer hours banked.
6. As for recommended changes for the project, I would start with the dip. I know it's not as healthy, but we think it would have been a smoother transition.

CONCLUSION AND CLOSING COMMENTS:

Looking back, I would also have a follow-up survey for feedback from the students. It would be interesting to know if these action research interventions last beyond the program and what it means for whole families. I would also give real thought to having students keep journals through the project and have staff record their own observations using anecdotal records and/or journals. I have just been getting informal feedback verbally and so far, that verbal feedback shows an overwhelming desire to see this program return.

We will absolutely be implementing this program again next year. So far it is clear that this approach helps improve instruction in at least two areas of the curriculum, it improves student performance in the classroom, it builds a stronger sense of community among the students and it seems to have a real

impact on students; life styles.