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Cultivating Intrinsic Motivation in the Family and Consumer Science Classroom

Jordan Meland

Cultivating Intrinsic Motivation in the Family and Consumer Science Classroom

Jordan Meland-Lanke

Northwestern College

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Dr. Daniela Syed

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Abstract

The purpose of this action research project was to examine the effects of intrinsic motivation strategies in the Family and Consumer Science classroom. Data was collected that examined pretest and posttest results of high school students in grades 9-12. The data gathered determined that there was a positive effect of the implemented intrinsic motivation strategies on the learners in General Foods, but it is unclear which strategy is more efficient than the others. Research shows that students struggle to stay motivated in middle school and high school. Creating opportunities for students to build intrinsic motivation may increase quality of work. It's important for facilitators to connect their content to the real-world and provide choice in assignments to build intrinsic motivation.

Keywords: intrinsic motivation, self-determination theory, family and consumer sciences

Cultivating Intrinsic Motivation in the Family and Consumer Science Classroom

Intrinsic motivation is a student's willingness to engage in a task or activity for their entertainment or for a new challenge rather than a reward (Lai, 2011). Intrinsically motivated students seek to learn more about a subject of interest both in school and outside of the regular school day because they find enjoyment and deep purpose in learning; their behavior is fully regulated from within (Froiland et al., 2012). Students in classroom settings who find motivation within themselves are also more likely to become lifelong learners (Lai, 2011). Teachers have the ability to cultivate an environment in their classrooms that fosters and encourages intrinsic motivation in students. When teachers create this type of classroom environment, students want to learn the content for the enjoyment of learning, rather than focusing on earning an A+ for the assignment (Lai, 2011).

Motivation can play a vital part in learning and assessment. Studies on motivation and self-esteem are significant as they help students to understand self-regulation where they often fail. In teaching, it is recommended that motivation and self-esteem are likely to improve when a course has many low-stakes assessment tasks. Bashir et al. (2016) found that one way for teachers to cultivate intrinsic motivation in students is to provide individualized quality feedback, rather than giving high-stakes semester tests. Feedback provides evidence about progress and achievement whereas summative assessment tasks are only about success or failure or how a student compares with their peers.

In addition to providing individualized feedback, offering choice can also increase intrinsic motivation. Lai (2011) found that teachers should attempt to give students more autonomy or control over their own learning by allowing them to make choices and use collaborative or cooperative learning approaches. Lai also stated that teachers should create a

supportive classroom environment with respect to goal structures, attributions, and external evaluation.

Intrinsic motivation can be cultivated in Family and Consumer Science (FACS), where courses motivate learners to become college and career-ready. FACS courses can connect content to the communities through industry collaborations and allow students to work side-by-side with professionals and develop leadership skills. A study conducted by Karpova & Marketti (2014) stated that learning through industry collaboration is critical in decreasing the gap between real world and the academic and school environment as well as increasing student motivation. The researchers connected their students with an industry to develop a project. The study explored students' perceived benefits and challenges gained from implementing industry-based assignments. The results from the study indicated that students appreciated the opportunity to work on real-life projects as part of their course work. Students believed that collaborations would prepare them for the real world (Karpova & Marketti, 2014). FACS classes can offer hands-on learning to keep students motivated to pursue a pathway after graduation.

This study will examine the effects on intrinsic motivation strategies as it aims to answer the action research question, What are the best practices for intrinsically motivating students in the Family and Consumer Science classroom? The study will allow learners opportunities to collaborate with each other as well as provide learners with honest and instructive feedback from their facilitator. This study will also examine if learners become more intrinsically motivated after they reflect on how what they are learning in class applies to real life. The purpose of this action research project is to find the best practices for intrinsically motivating students in Family and Consumer Science (FACS) courses. The researcher's goal is to cultivate a positive and engaging classroom environment through activating the intrinsic motivation of learners.

Review of the Literature

Intrinsic Motivation

Intrinsic motivation is the act of doing something without gaining any external rewards. Intrinsically motivated people do the activity because they find it enjoyable, satisfying and interesting (Santos-Longhurst, 2019). Adolescents have the ability to become intrinsically motivated. Gaylor and Nicol (2016) conducted a study about intrinsic motivation in their high school career exploration class with students in grades eleven and twelve. Students' perceived self-efficacy and motivation were examined through the career exploration course. Their study found that classrooms can become controlling environments when teachers maintain order and discipline through the use of rewards, criticism, directive statements (e.g., use of "should" or "have to"), and evaluation. In these controlling environments, students typically receive little formative feedback and have few options for demonstrating their abilities and taking responsible learning risks. Hesek (2004) also indicated that facilitator involvement was vital to a learner's experience in the classroom and that offering detailed voice and choice assignments and activities increased learner motivation throughout the year

Classrooms with teachers who don't deliver feedback or offer choice can create controlling environments. Controlling classroom practices are believed to restrict a learner's feelings of relatedness, autonomy, competence, and the supportive practices that foster feelings (Gaylor & Nicol, 2016). Supportive classrooms are those in which facilitators value learner input about lessons and activities. Supportive teachers provide opportunities for meaningful assessment and group work (Gaylor and Nicol, 2016; Hesek 2004). Learners were also more intrinsically motivated and engaged when they thought their facilitator was involved in their learning, when the facilitator had clear goals and reviewed the goals at the beginning of the lesson, and when the facilitator allowed the learners have a voice in choosing assignments

(Hesek, 2004, Patall et al., 2018). Teachers can also contribute to the motivation in learners through their explanations, asking critical thinking questions, encouraging the learners, and offering themselves as partners within a group (Scogin, 2016). Supportive classroom teachers are engaged in activities and lessons and review the goals of the activity. A study from Afzal & Ali (2010) found that there is a positive correlation between learner motivation and a learner's academic performance. If the learner-facilitator relationship is reciprocal and both parties feel respected, learners who are motivated perform better, and learners who perform better become more motivated.

How a learner is feeling also affects their motivation, engagement, self-regulation, and learning outcomes. Arguedas et al. (2016) used an emotional analysis model that integrated four concepts into the classroom. The goal of their work was to analyze the effects of emotion awareness on learners' motivation, engagement, self-regulation, and learning outcomes in a long-term blended collaborative learning environment. The showed that when learners are aware of their emotions, they become more conscious and in turn change or adapt their behavior for the benefit of the group (Aguedas et al., 2016). The results also showed that when facilitators are aware of students' emotional state, they are more likely to intervene and address the group with focused feedback and support.

Learner engagement in academic activities is a major factor that contributes to the overall success of students studying in higher education institutions (Xerri, et al. 2017). Whereas the factors influencing student engagement in academic activities are still largely unknown, research completed by Xerri et al. (2017) suggests that peer-peer relationships, facilitator-learner relationships, and learners' sense of purpose for studying are central to student engagement in activities. One key point of the findings was based on the notion that facilitator-learner

relationships can influence learners' perceptions of class workload and their engagement in the academic activities (Xerri et al., 2017). The results also suggest the need for developing effective teacher-student relationships, encouraging positive peer engagements, and communicating a clear sense of purpose to students in order to improve student engagement and minimize perceptions of high workloads. The combination of the two will positively influence student engagement in academic activities.

The way an educator teaches can affect intrinsic motivation. Another study completed by Anwer (2019) found that interactions between teachers and learners' play a crucial role in the motivation of students. Anwer created a control group of students who were taught traditionally and an experimental group of students who were taught through hands-on activities. The study concluded from the results that there was a positive effect from activity-based teaching in developing motivation and improving academics of students at a higher secondary level. Through activity-based teaching, learners are able to broaden their horizon of thinking (Anwer, 2019).

If a facilitator is thoughtful and sincere in assigning work to their students, they also may show qualities of a self-determined educator. Roth et al. (2011) conducted a study that examined teachers' experience of autonomous motivation for teaching and its impact on students. The students completed a questionnaire that assessed their teacher's autonomy support and teaching behaviors. The study showed that motivation for teaching was positively associated with a facilitator's sense of personal accomplishment and negatively with a facilitator's feelings of fatigue and exhaustion. As predicted, motivation for teaching was positively related to the learner's perception of their teacher being supportive (Roth et al. 2011). The findings were also consistent with the hypothesis that autonomous motivation for teaching promotes students'

autonomous motivation for learning by enhancing students' experience of their teachers as autonomy support (Roth et al., 2011).

How a self-determined facilitator feels may lead to self-determined learning from students, but having a supportive teacher in the room is not the only thing that can affect intrinsic motivation in students. Offering choices to learners has also shown to increase motivation. Autonomy supportive environments allow learners to regulate their behaviors freely in the classroom setting. The autonomy-oriented classroom is a classroom where the facilitator encourages learners to advocate for their own learning, as well as support the learner in finding answers to their questions and exploring topics freely (Hesek, 2004). At times, choice can be overwhelming to learners; how the teacher delivers the content is crucial. When teachers offer voice and choice assignments, it's important that the choices are accompanied with support, like opportunities for questions and examples of work. When choice is implemented strategically and meaningfully, it may be more likely to be experienced as personal and effective (Patall et al., 2018, Pulfrey et al. 2013). At the high school level, students may be more inclined to take responsible risks in their learning when offered choices. Patall et al. (2018) suggested that it was important for high school teachers to focus on motivation interventions for their learners. Specifically, they found that there is value in teachers implementing daily practices in the classroom that promote choice and encouraging learners to be active in their learning.

Facilitators who offer choice have the opportunity to become a contributing factor in learner motivation. Another way to increase motivation may be to provide learners with authentic learning opportunities. In a study conducted by Scogin (2016), researchers found that when teachers gave their learners more freedom and challenged them to take projects deeper by offering encouragement and providing scaffolding, the learners were engaged and had

motivation to complete the project. The project brought in scientists that connected with the learners to make it an authentic learning experience. Researchers found that when they connected their students to researchers, the learners displayed positivity, greater willingness to take projects deeper, better understanding of scientific concepts, and a greater commitment to collaboration and working with their team (Scogin, 2016). When the learners worked in groups on their inquiry-based questions with their scientist, they reported that it made them feel empowered and the assignment was authentic.

Patall et al. (2010) found that providing choice may be one of the several ways facilitators can influence their learners. When learners recognize that their facilitator allows them to make choices in how they can demonstrate their learning, it may also increase the learners' perceptions that the facilitator is listening to them. The learner may feel that the facilitator taking their perspectives into consideration means that their teacher understands how they learn and respects them. Allowing learners to act as decision makers and own their education may be the most direct way to establish an environment that is supportive of voice and choice and enhance intrinsic motivation for assignments.

While offering choice has shown to have a positive effect on learner motivation, it does not come without a cost to the facilitator. Patall et al. (2010) conducted their study on choice in the classroom. The study showed that there was a clear benefit for the learner when given a choice of homework assignments. Anecdotally, it was clear that the benefits of choice-based learning were not gained without a cost. When facilitators provided multiple homework options for every homework assignment or activity, it placed an additional burden on the facilitators who had to design, assign, and grade all the different assignments (Patall et al., 2010). Teachers who

create, assign, and grade multiple homework options for different classes may have more than one struggle when promoting intrinsic motivation in learners.

Self-Determination Theory

Self-Determination Theory focuses on three factors that encourage intrinsic motivation: competence, autonomy, and relatedness (Deci & Ryan, 2012). The core hypotheses of the Self-Determination Theory (SDT) in education are the following: (a) autonomous forms of motivation will lead to an enhancement of learners' engagement, learning, and wellness; and (b) basic psychological support from both facilitators and parents teaches motivation in learners (Deci & Ryan 2020). Competence refers to whether a learner believes that they are good at a given task; autonomy in the classroom is operationalized as the perception of choice; and relatedness is conceptualized as the feeling or sense of belonging. Deci and Ryan (2012) proposed that intrinsic motivation develops when these three needs are fulfilled.

According to the SDT framework, learners control their needs and growth dispositions to seek out and effectively and appropriately engage in their classroom environment. There are multiple influences within a classroom that affect a learner's daily motivation and longer-term motivational development. Two main influences that are within a facilitator's control are providing interesting activities and lessons for the learners as well as consistently following their instructional agenda (Reeve, 2006). Reeves found that a facilitator's autonomy-supportive teaching style and the study of the student-facilitator dialogue are important. The article made five points about a motivating style and its benefits to learners: (1) Research has shown what autonomy-supportive facilitators say and do during direct instruction; (2) Voice and choice instruction enhance learners' engagement and creates a sense of ownership in learning; (3) An autonomy-supportive motivating style of instruction can be learned and practiced; (4) Autonomy

support, structure, and consistency cultivate learners' motivation; (5) When a facilitator provides voice and choice with support and details, learners demonstrate high quality work and a positive relationship with their facilitator (Reeve, 2006). The five main points of the study lead to the conclusion that learners benefit when facilitators structure the classroom learning environment in ways that nurture and involve the learners.

Integrating Intrinsic Motivation Strategies

Teachers frequently struggle to motivate their students, (Brophy, 2008; Froiland, 2012) and many students lose motivation to learn each year as they move from early elementary to high school (Lepper et al., 2005; Hesek, 2004)**.** In many middle schools and high schools, students complete their work because it is their assignment or they need to earn a certain grade. In high school, student-athletes often have to keep their grade point average at a satisfactory level. In order to participate in extracurricular activities such as music or theatre, students must also present satisfactory grades. Sports and extracurriculars are frequent extrinsic motivators as adolescents move from elementary to middle school and high school.

The struggle to motivate learners begins in middle school and often stays throughout high school years. Saeed & Zyngier (2012) conducted a study using Ryan & Deci's Self-Determination Theory (2000) to better understand how student motivation and engagement are linked. The findings of the research confirmed previous findings that disengaged learners may complete their work but complete it without interest or commitment. Engaged and excited learners who put in effort to master their learning achieve the highest academic results they are capable of obtaining within their zone of proximal development (Saeed & Zyngier, 2012). Saeed & Zyngier's research also confirmed that intrinsically motivated students are more competent and engaged in their learning than students who are non-intrinsically motivated. The findings

found that when learners need for competence, relatedness, and autonomy are fulfilled by their facilitator, then student motivation and engagement is enhanced.

Some of the classroom activities that a teacher wants students to do are not necessarily interesting or enjoyable to the learner. There are strategies to help teachers make learning more enjoyable for students in their classrooms. A teacher who integrates technology tends to have more effective strategies for successful teaching (Ryan & Deci, 2000; Saeed & Zyngier, 2012). Further research from Saeed & Zyngier confirmed that motivated and engaged students learn better and show best possible outcomes in their academic study and by using the appropriate pedagogical strategies. Facilitators can also make classrooms more engaging places for learners by utilizing technology.

When teachers take the time to think about what their learners' interests are and integrate technology, intrinsic motivation in their students may increase. Another way for teachers to integrate intrinsic motivation strategies is to provide learners with verbal feedback. According to the Cognitive Evaluation Theory (CET), verbal rewards typically contain explicit positive performance feedback, and the CET predicts that learners are likely to enhance perceived competence and thus enhance intrinsic motivation. It's important to note that verbal feedback is tricky because as it can have a significant controlling aspect that could lead learners to engage in behaviors specifically to gain praise and thus undermine the intrinsic aspect. Verbal feedback, when paired with how facilitator delivers the content, is better than verbal feedback alone.

Verbal feedback is a way to communicate with learners in the moment to motivate them. Another way to promote motivation that is similar to voice and choice is to provide learners with opportunities to create feedback and their own learning activities. Yu et al. (2018) conducted a study on middle schoolers in Taiwan. The findings revealed that for the average participant,

creating personalized feedback platforms for their fellow peers to learn from provides opportunities for the learners to fulfill their need for autonomy and choice. When learners are able to create feedback using choice, it creates a feeling of pride, performance, and satisfaction (Yu et al., 2018).

A type of learning that may increase intrinsic motivation is Problem-Based Learning or PBL. A study by Fukuzawa et al. (2017) looked at PBL in response to learner motivation. Post-secondary students were placed into PBL groups based on their experience and prerequisites. Fukuzawa et al. (2017) expected students with the most subject matter knowledge to have the highest motivation, and as they had expected, there was an increase in intrinsic motivation for most students in the PBL course. As a whole, learners were able to recognize the skills they learned through PBL and how they could apply it to their lives and futures.

Different types of learning could increase intrinsic motivation, but the diversity in a school could make it more difficult for educators to integrate intrinsic motivation strategies. Gillen-O'Neel et al. (2011) conducted a study with 624 children from New York City. The social development study examined the dynamics of stigma and academics among diverse, middle-childhood students. The findings suggest that even in elementary school at early ages, ethnic-minority children are more likely than their ethnic-majority peers to report awareness of stigma. This awareness is associated with higher academic anxiety and lower intrinsic motivation (Gillen-O'Neel et al. 2011). The findings suggest that supportive school environments may be important sources of intrinsic motivation among some ethnic-minority students in the face of stigma.

Methods

Participants

This action research study was conducted at Washington High School in Sioux Falls, South Dakota. Sioux Falls is the second-largest city in South Dakota and had a student enrollment of 183,793 in 2019 (Census, 2019). Sioux Falls has three high schools with a fourth opening in the 2021-2022 school year. Washington High School is the largest of the schools with a student population of 1,950 in the 2018-19 school year. The percentage of ELs (English Learners) at Washington in 2019 was 17%.

The study was performed during the fall of the 2020-2021 school year in the Family and Consumer Science classroom, a general education setting. The participants consisted of 57 students who ranged from freshmen to seniors. The students were given the option to complete a pretest and post-test about their intrinsic motivation in General Foods. Of the students who chose to participate, ten were placed on IEPs (Individualized Education Plan) for various services, and 26 of the 57 were considered ELs. The native languages of the EL were Spanish, Tigrinya, Kunama, Somali, Amado, Liberian English, Kayah, and Nepali. The students who participated were considered Caucasian, Black or African American, Asian, Hispanic, or Native American. The group contained 49% male participants and 51% female participants.

Measures

The focus of this action research was to examine the effects of intrinsic motivation strategies on learners in Family and Consumer Science classes. The independent variable was intrinsic motivation. The dependent variables were three intrinsic motivation strategies facilitated by the teacher: offering choice, offering collaboration with peers and providing honest and instructive feedback.

The teacher collected quantitative data from a 22-question Google Form pretest containing statements about how motivated the learners felt in General Foods. The pretest contained questions about the learners' curiosity about the subject, the effort they put into the class, and if they thought the class was useful and relevant to their lives. The learners rated themselves using a 1-5 scale for each statement: 1) strongly disagree, 2) disagree, 3) neutral/undecided, 4) agree, and 5) strongly agree. After the pretest, the intrinsic motivation strategies were implemented by the teacher, and qualitative data was collected throughout the semester. The qualitative data was collected through learner reflections and the teacher's weekly reflections. At the end of the course, learners were given a posttest that consisted of the same questions. The pretest and posttest results were compared and used in conjunction with learner and teacher reflections.

Procedures

After the pretest, learners were exposed to different practices for building intrinsic motivation. Providing choice was the first strategy that was implemented. The facilitator created and offered voice and choice boards for learners when possible. For example, when learners created a quiz for their classmates, they were given choices on which platforms they could use. The learners were also given choices as to what they would make for a recipe in the lab and a choice of whose lab group they would like to be in.

The second strategy implemented was collaboration with peers. The content of Family and Consumer Sciences (FACS) creates a natural environment for blended learning and thus creates opportunities for collaboration. When learners are in the lab cooking or baking, they are in groups of three or four members. The lab groups are expected to work as a team to complete the recipe within the allotted 50-minute class periods.

To build these expectations, the members worked together in team-building activities before working together in the lab. Learners also wrote rules as a class for working in the lab together. The rules were listed in each kitchen and stated, “Everyone contributes. Everyone takes turns washing the dishes. Everyone tries new things.”

The last strategy that was implemented was honest and instructive feedback from the teacher. The teacher placed a special emphasis on feedback, rather than grading. A majority of the feedback to learners came in the form of verbal communication, on the spot. Feedback was individualized, honest, positive, and redirected if needed. The teacher utilized Google Classroom comments when learners turned in assignments for personalized comments. The learners reflected on their labs and were able to share with the teacher how they thought the lab went, what they did and the grade they would give themselves based on their effort and how the final product turned out.

Each week, the teacher reflected on learner growth and the goals of the activities. Reflection questions included the following: 1) what is the goal of the lesson and how was it met? 2) what was the climate of the environment this week? 3) what was special or unique in the lessons/activities this week?

Collecting quantitative data allowed the researcher to understand the class as whole as well as compare individual learner answers. Collecting qualitative data allowed the researcher to look at specific learners and the growth that was demonstrated.

Findings

Data Analysis

A dependent groups *t* test revealed that there was not a statistically significant difference in pretest scores on intrinsic motivation levels (M = 86.58, SD = 11.19, n = 41), as compared to posttest scores on intrinsic motivation levels (M = 88.90, SD = 11.37, n =41) following best practices for cultivating intrinsic motivation with a small effect size, t (40) = .177, $p < .05$, d = 41. On average there was a 3-point difference between the groups.

Quantitative Data Analysis

The researcher is a certified Family and Consumer Science teacher with five years of classroom experience. The research was collected independently by the teacher both prior to implementing the new skills as well as post implementation.

The quantitative data was collected using a Google Form. The Google Form showed each individual learner's score as well as combined all the scores into a colored pie graph with percentages. The pretest form was completed by 58 learners, and the posttest was completed by 41 learners. The number of learners participating in the study dropped due to various reasons: learners were frequently absent from class due to personal reasons or chronic absenteeism or learners were absent from school due to Covid-19. The researcher matched up the 41 posttests with the 41 pretests and used that information during the quantitative data analysis. The survey consisted of 22 statements in which the learners answered the statements using a scale from 1-5: 1) strongly disagree, 2) disagree, 3) neutral/undecided, 4) agree, and 5) strongly agree.

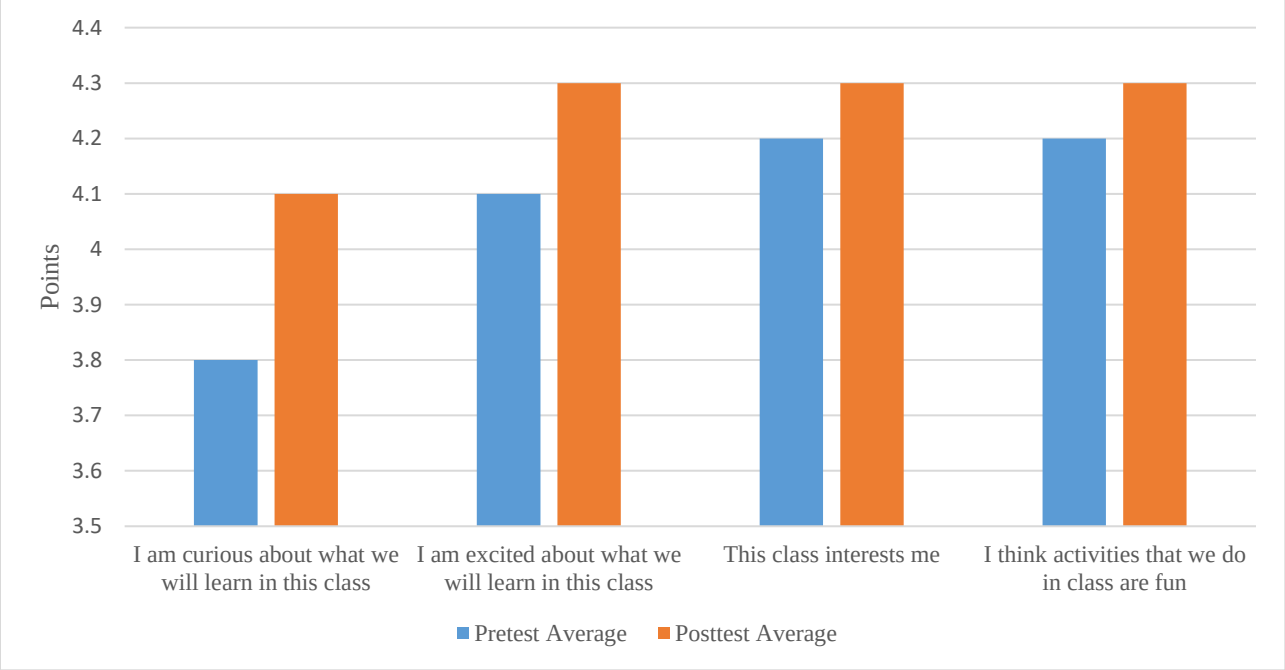
The total number from each individual learner reflected how much they agreed with the statements. The higher the final number, the more the learner agreed with the statements. The lower the final number, the more the learner disagreed with the statements.

The highest score a learner could achieve was a 110, that score indicated that they strongly agreed with every statement. The goal of this research was for every learner to answer "agree" or "strongly agree" to the statements. The class average of the 41 pretests was 86.7. The class average of the 41 posttests was 89. There was an average of three-point growth from these 41 learners. Of the 41 students, 27 increased their score, four stayed the same, and ten decreased. The biggest increase was 20 points and the biggest decrease was ten.

In the following figures, the data collected from the pretest and posttest was compared. The researcher placed each question into one of six subcategories. The subcategories were: curiosity/interest in the class, learner effort in class, connections between the class and real-life, confidence levels of learners, choices the learners felt they had in General Foods, and work ethic. The figures represent the learners as a whole. The average scores from the pretests and posttests are compared in the following graphs.

Figure 1

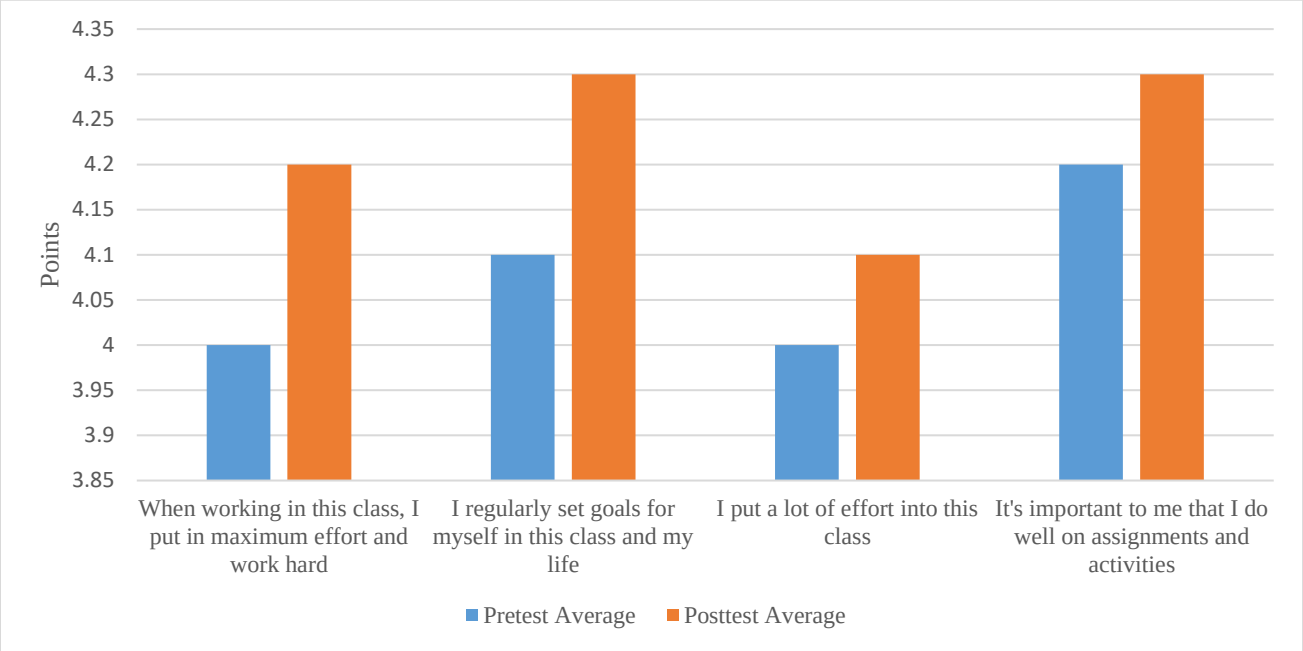
Curiosity/Interest in the Class



Pretest and posttest results from the category about learner interest in General Foods.

Figure 2

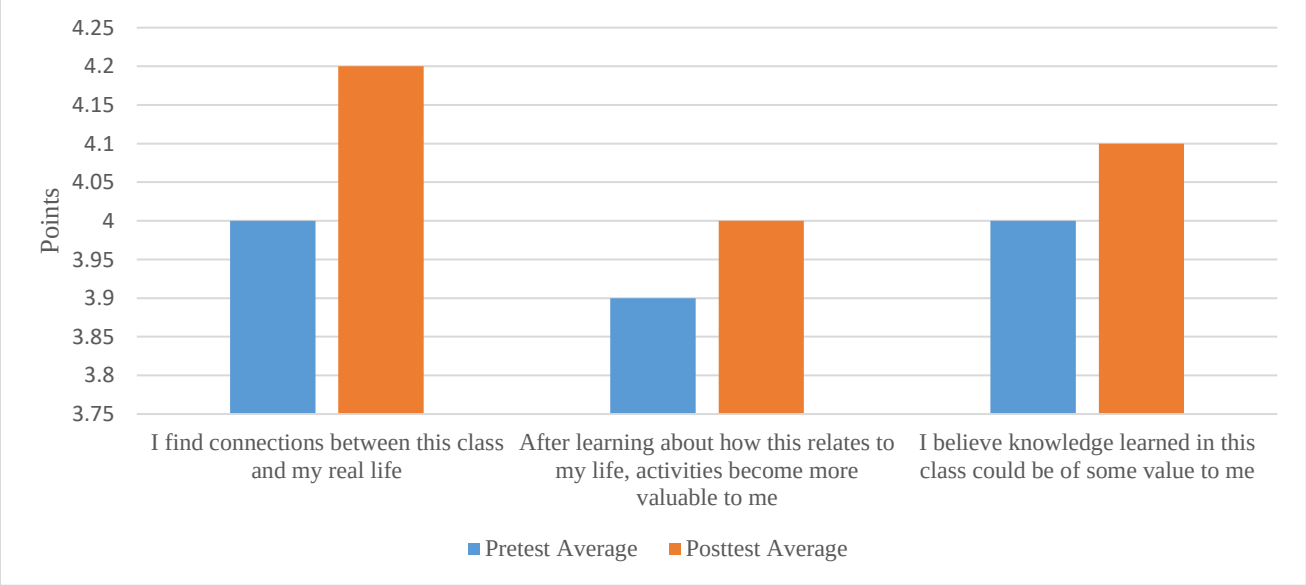
Learner Effort in Class



Pretest and posttest results from the category about learner effort in General Foods

Figure 3

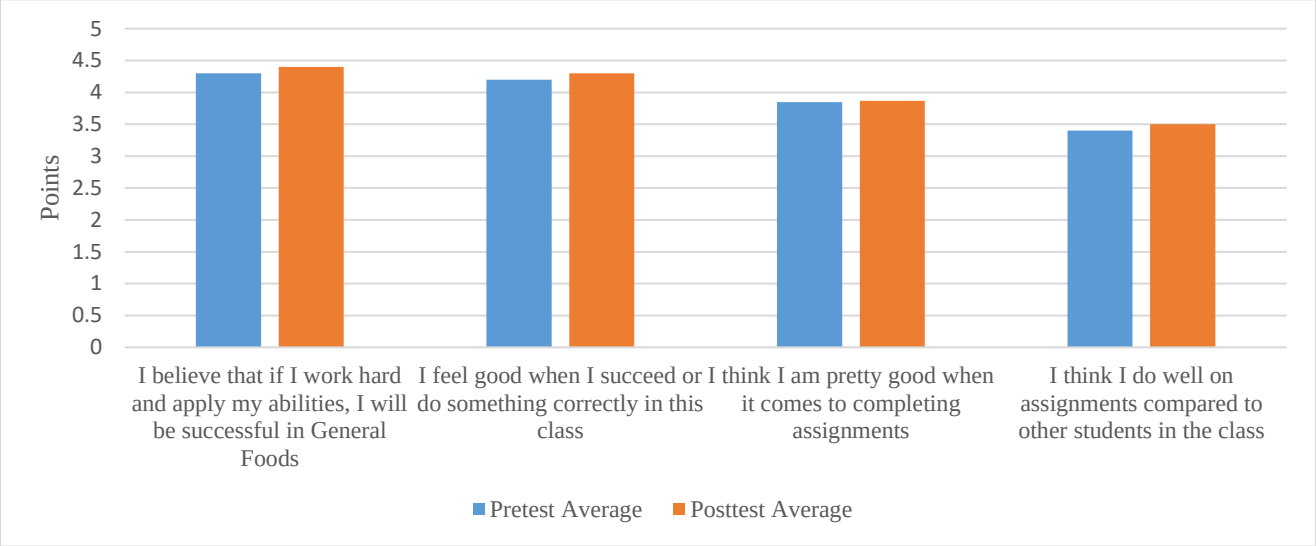
Connections Learners Find Between General Foods and Their Lives



Pretest and posttest results from the category about the connections learners find between General Foods and their lives.

Figure 4

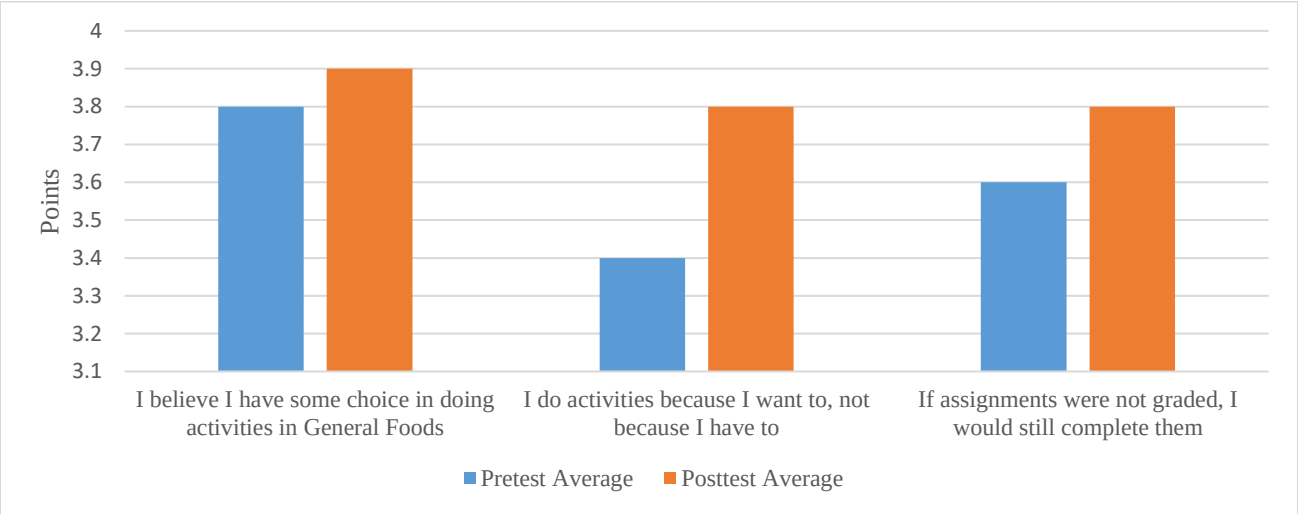
Confidence Levels of Learners in General Foods



Pretest and posttest results from the category about how confident the learners felt when they handed in assignments.

Figure 5

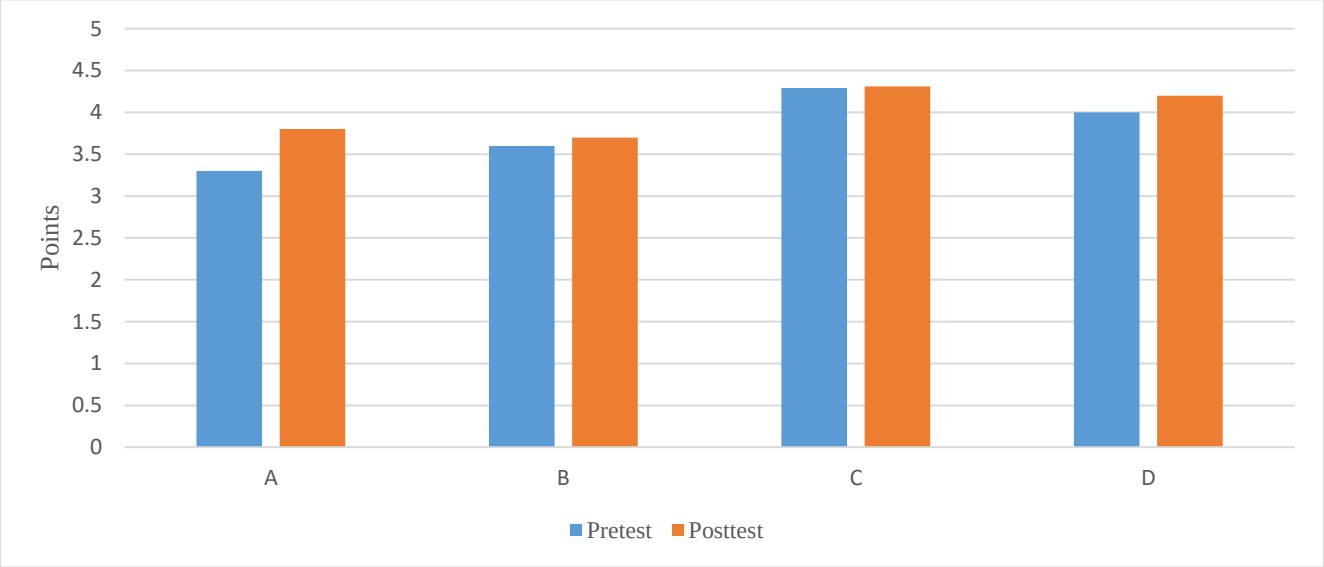
Choice Learners Felt They Had in General Foods



Pretest and posttest results from the category about the choices learners felt they were able to make in General Foods.

Figure 6

Work Ethic of Learners



Pretest and posttest results from the category about work ethic of learners in General Foods.

Key:

A= I use rewards to keep myself focused. For example: If I finish my assignment early, I allow myself to take a break

B= While working on assignments, I think about how much I am enjoying it

C= I believe doing activities and labs in General Foods could be beneficial to me and my life

D= I am willing to do activities in this class because it has some value in it for me and my life

Qualitative Data Analysis

The qualitative data collected for this study was done by anecdotal records pre- and post-implementation. The researcher kept a journal and answered questions about each class and

lessons throughout the duration of the action research project. The researcher noticed that on lab days (when the learners were in the lab cooking/baking), the engagement level in the room was 95-100%. During this lab time, learners also seemed to discover that they were allowed to make low-risk mistakes. For example, the learners knew that while it was important to read the directions in the recipe, they would not receive a failing grade if they mixed up tablespoon with teaspoon while measuring baking powder or if they forgot to grease their pan. The researcher noted that when these low-risk mistakes were made, learners were more aware of completing the task correctly the next time.

When learners received prompt and specific feedback on-the-spot, it was generally well-received, and the researcher noted that most tasks within the lab offered an authentic challenge. The researcher visited each lab group several times throughout the class period and offered suggestions while still requiring high quality work. This built a positive climate where learners felt safe to ask questions like, 'Am I holding this chef's knife correctly?', 'What does it mean to mince again?', 'Is this the best way to cut a pepper?'. When the researcher offered suggestions and validated their skills and abilities, the learners were more likely to ask questions rather than guess the next time they felt unsure. The researcher also tried to consistently praise the process and the hard work the learners were putting in, versus praising how smart or intelligent they were.

The researcher noticed that while all learners' backgrounds and identities were valued, English Language Learners seemed the most timid and expressed feelings of uncomfortableness and confusion in the lab. Many lacked the confidence to read and follow the directions. The researcher created different lab groups towards the middle of the semester once the different learner personalities and skills were evident. The researcher was able to note who needed to be

paired with a confident peer. The English Language Learners also needed extra support and encouragement from the facilitator. The facilitator added pictures to recipes for differentiation and when possible, paired the learners up with someone else who spoke their language. The researcher also noted that English Language Learners moved at a different pace and frequently double-checked their assignments and recipe steps before moving forward.

The researcher had a goal to implement more choice in assignments, but the demographics of the General Foods courses made it difficult. The 26 of 57 learners that identified as English Language Learners made up nearly 50% of the classes. While choice can have an impact on intrinsic motivation, the researcher noted that choice could be confusing to English Language Learners who required one set of simple directions.

Overall, the atmosphere was motivating and learners worked together to complete labs. The researcher noted that when given the opportunity, a few learners showed growth in positive leadership skills and ability to management their time.

Discussion

Summary of Major Findings

The study's purpose was to determine if intrinsic motivation in learners will increase with the implementation of the following: 1) offering choice, 2) offering collaboration with peers and 3) honest and instructive feedback from the facilitator. When analyzing the pretest and posttest results, the researcher noted that all categories saw improvement. Although not every student increased their score, the overall findings of this study determined that the practices for promoting intrinsic motivation had a positive effect on the learners in General Foods. The greatest increase in scores throughout this study were related to questions regarding the connections the learners make between the class and their lives. If the learners believed that General Foods could have some value and benefit their lives, they were more likely to answer positively when asked about the amount of effort and hard work they put into the class.

Limitations of the Study

Although this study showed positive results for the use of integrating intrinsic motivation practices, there are limitations. The limitations of the research include student attendance, student understanding of the questions, and the idea of best practices for intrinsic motivation. The number of learners who took the posttest was sixteen less than who had taken the pretest. This decrease was due to various reasons, both in control and out of control of the learner who was absent from class. In addition, the English Language Learners were read the statements on the pre and posttests. Although it was read aloud, the WIDA (World-Class Instructional Design and Assessment) scores of numerous EL learners were low, and it was unclear if they understood the statement.

In this research, the facilitator chose three practices to focus on, but there are other ways to promote intrinsic motivation at the elementary and middle school levels. This study was also limited by the amount of time for data collection and intrinsic motivation practices to be implemented. This study does not show long-term effects of learners' intrinsic motivation. Continuing research on the best practices for building intrinsic motivation in all learners will give facilitators more information on how to best motivate everyone in their classrooms.

Further Study

Further study needs to be done to show that implementing choice, offering collaboration opportunities with peers, and providing honest and instructive feedback builds intrinsic motivation. This study was not long enough to determine if the feeling of motivation will continue for the rest of the semester and if it applies to other classes. Research should include data from a full semester or year-long course and continue to include all grade levels as well as a diverse population. Further studies may include different strategies to build intrinsic motivation.

Conclusion

Studies reveal a steady decline in student engagement throughout middle and high school (Mathewson, 2020). It is important for secondary educators to recognize that there are everyday strategies they can implement in their classrooms to promote intrinsic motivation in adolescent learners such as providing choice, giving positive verbal feedback, offering collaboration with peers, and making connections to the real-world from the content. Educators can help create and build intrinsic motivation in students. Integrating intrinsic motivation theories could help create a relevant classroom environment where learners are able to connect the activity to their lives or future lives.

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