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Exploring homeschool parents' willingness to incorporate agriculture into curriculum: Parental perceptions of teaching agricultural education.

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Students in public and private schools have a greater opportunity to receive access to agriculture education, yet there is a group of students who are being left behind in the opportunity to receive agriculture literacy. Many students do not have access to agriculture education, yet there is a strong urge for graduates with agricultural degrees. There is a lack of research in homeschooled students receiving agriculture curriculum in their studies. As the population continues to steadily grow, the need for agriculturally literate consumers has increased. Promoting students' ability to receive agriculture curriculum will build agriculture literacy within the education system. This research is to understand the needs within homeschool education in order to incorporate agriculture education.

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CHAPTER I

INTRODUCTION

Education serves as the cornerstone for individuals to navigate behavioral choices and tackle challenges (Behrman & Stacey, 2014). It forms the foundation for a child's development, and it can look different for every student. Public, charter, private, or homeschooling each offer diverse opportunities for supplemental education. Homeschooling is becoming more mainstream in the United States as an alternate way to educate children. While there is substantial research on outcomes of homeschool children, a lack of literature exists regarding the role parents play in the education process and what drives their decisions on included curriculum development.

A substantial portion homeschool families in the U.S. are involved in agriculture, suggesting that these students may possess an understanding of agricultural concepts (Kelber, 2019). However, evidence suggests that most homeschool families in the U.S. do not integrate agriculture curricula into their educational lessons (Kelber, 2019). Due to policy, from national, state, and local laws, homeschool parents have limited opportunities to part-time enroll their children in formal agriculture education programs (Kararo & Knobloch, 2017). Whether or not parents decide to participate in part-time enrollment, or to keep them home and educate them themselves, homeschool parents make all decisions regarding curriculum and instructional methods.

Homeschooling parents supplement formal education by determining lesson plans, grading assignments, and developing new activities (Zane, 2021). Along with determining all

components of their children's education, homeschool parents also determine what extracurricular activities their child participates in. Extracurricular activities and elective courses play a pivotal role in enriching students' learning experiences (Massoni, 2011). Specifically in the public educational framework, agricultural education stands out as an intracurricular component, joint with the National FFA organization. Enhancing students' knowledge of agriculture can facilitate connections between their real-world experiences and academic studies. Parents having access to, and utilizing, curriculum familiar to homeschool students cognitive, social, and mental situations will increase a better understanding of agriculture and agriculture literacy (Kelber, 2019).

Statement of the Problem

As the population continues to grow, the incorporation of agriculture into curriculum is crucial for enhancing citizens' agricultural literacy, knowledge, and understanding of food fiber systems (Burrows et al., 2019). The predominant forms of educating children are public, private, charter, and homeschooling. While each of the systems have challenges, homeschool students are met with challenging opportunities to enroll in formal agriculture education programs (Kararo & Knobloch, 2017). Because parents are the primary decision makers in homeschool, their students may not be exposed to agriculture education during their schooling. While the utilization of agriculture education in public and private schools has been studied, there remains a significant need for research on homeschool students' access to agricultural education (Kararo & Knobloch, 2017). This gap in the literature suggests the possibility that it hasn't been explored within this setting and students may lack exposure to agriculture.

Purpose Statement

Because parents are the decision makers in homeschool environments, they determine what components are included in the curriculum. While public and private schools are typically the focus when it comes to incorporating agriculture curriculum, homeschool students often do not have equal access to such opportunities and are frequently left out of the conversation. Ensuring inclusivity of all students, regardless of their educational backgrounds, could significantly advance agriculture literacy where it yet has been fully explored. Citizens understanding where their food comes from by being agriculturally literate is important for future generations (Burrows et al., 2019). Insight into homeschool parents' views of agriculture and identifying perceived barriers are needed to enhance accessibility to agriculture education for homeschool students. Therefore, the aim of this study is to determine the perceptions of homeschool parents in Mississippi regarding agriculture, agriculture curricula, and what resources are needed for parents to integrate agriculture curriculum into their child's education.

Research Objectives

The following objectives guide this study:

Objective 1: Describe homeschool parents' perceptions regarding agriculture and agricultural education.

Objective 2: Determine homeschool parents' perspective of agriculture curricula and current implementation.

Objective 3: Identify where support is needed to promote homeschool parents' adoption of agriculture into existing curriculum.

Objective 4: Compare homeschool parent demographics to knowledge of resource availability of agriculture and willingness to incorporate agriculture topics

Significance of the Study

Extracurriculars, academics, and varying organizations are opportunities for public, private, charter, and homeschool students to explore new innovative ideas they may not have had otherwise. Incorporating agriculture education is an opportunity to incorporate new subject areas students may have not had before, Kelber (2019) noted that:

> "Given that parents have a legal right to provide the education they deem best for their children, it is important that gaps in their ability to provide such education are identified and addressed if homeschooled children are going to graduate from their home schools with the prerequisite skills to be successful and competitive against their public-school counterparts." (p. 1-2)

In 2020, there were approximately 25,376 Mississippi students homeschooling (Kittredge, 2020). With such a significant number of students being homeschooled in Mississippi, there arises a question: Could there be a gap in their education, particularly in standardized agricultural curriculum? Participation in agriculture curriculum not only allows students to engage actively but also prepares them to make informed decisions about agriculture, food, fiber, and natural resources throughout their lives (National FFA, 2019). Because there is a strong demand for college graduates in food, agriculture, and natural resource careers, it is beneficial for homeschooled students to explore agricultural careers and develop entrepreneurship and leadership skills through agricultural education and FFA programs (Kararo & Knobloch, 2018).

Limitations

There are few limitations for this study when analyzing the results from homeschool parents. This study cannot be generalized outside the state of Mississippi, where all participants

reside. Because of the lack of an email list, surveys were delivered to co-op groups, and homeschool organizations to disseminate to parents to complete. No direct contact with parents was made to deliver the survey.

Assumptions

The following assumptions were made before and during the time of this study: 1) Parents answered all questions to the best of their knowledge on the survey. 2) Due to the lack of an email list, Mississippi home educators, and co-op groups disseminated the survey to all the parents to complete. 3) Parents knew a general definition of agriculture. 4) The activities included in the survey were representative of opportunities to integrate agriculture into homeschool curriculum.

Definition of Terms

Perception - the ability to understand inner qualities or relationships (Merriam-Webster, n.d.)

Homeschooling - the education of school-aged children at home rather than in public or private settings (Basham, 2001)

Agriculture Literacy - an understanding of agriculture and current economic, social, and environmental impacts could lessen current challenges facing agriculture through good decision making along with providing the necessary support (Kovar & Ball, 2012)

4-H - delivered by Cooperative Extension kids and teens complete hands-on projects in areas like health, science, agriculture, and civic engagement in a positive environment where they receive guidance from adult mentors and are encouraged to take on proactive leadership roles (*What is 4-H?* 2023)

FFA - is an intracurricular student organization for those interested in agriculture and leadership (*About Us*, 2023)

Extracurricular - not falling within the scope of a regular curriculum (Merriam-Webster's Collegiate Dictionary, 1999)

School Based Agriculture Education - cost effective system of delivering agricultural innovations, guided by an experiential learning model, in non-dormitory, post primary schools (*What is SBAE?* 2020)

Intracurricular - an activity of the learning process carried out in the classroom; this activity is carried out according to a plan that is based on the curriculum

Farm Family - "A farm or ranch in the United States that is family owned and operated" (USDA, *Family Farms*, para. 1)

Parental Involvement - involvement of resources in children's education, including parent-child communication about school-work, supervision of homework, educational aspirations for children, school contact and participation, and provision of school supplies (Fan & Chen, 2002)

CHAPTER II

REVIEW OF LITERATURE

Homeschooling is an educational approach where parents take on the role of educators for their children at home (Martin, 2022). In recent years homeschooling has seen a resurgence due to the COVID-19 pandemic (Martin, 2022). In states like Mississippi, where rural populations are significant, homeschooling families can face unique challenges and opportunities. Parents in Mississippi can start homeschooling at any time, but access to public classes and activities for homeschoolers varies by district, leaving students unable to participate in programs like agricultural education or FFA (HSLDA et al., 2020, p. 1). While homeschooling parents often choose this path for ideological reasons or due to dissatisfaction with traditional schooling, they now seek flexibility and personalized education for their children (Collom, 2005). Agricultural education holds particular importance, given its relevance to rural lifestyles and societal well-being. However, accessing agricultural education, through intracurricular activities like FFA, proves challenging due to varying state policies and district regulations. Addressing policy limitations and enhancing access to extracurricular learning opportunities can enrich the homeschooling experience and foster agricultural literacy among students nationwide.

What is homeschooling?

Instead of students attending traditional public, private, or charter schools, homeschooled children are taught by their parents at home. The conventional perception of homeschooling involves parents or guardians assuming the crucial role of educators for their children, as

opposed to delegating this responsibility to a public, private, or charter school (Martin, 2022). Although to help homeschool parents in teaching, they have the option to join co-op groups to share teaching duties (Topp, 2014). The concept of homeschooling within the United States is not a new concept, but considering the pandemic, more families have chosen to keep their children home and continue homeschooling (Martin, 2022). The number of students who are homeschooled rivals students who participate in charter school often because of the way children are taught in the United States (Bruce, 2009). The President of the National Home Education Research Institute estimated the number of homeschool students in 2010 was between 1.7 million and 2.3 million (Ray, 2011). As homeschooling continues to grow it provides parents alternatives to public, private, and charter school education.

Homeschooling in Mississippi

In the state of Mississippi, where 54% of the population resides in rural areas (Mississippi State University Extension Service, Department of Rural Health, 2019), homeschooling takes on a unique dimension. Rural families are twice as likely to homeschool, driven by their tendency toward political and cultural conservatism; additionally, the growing appeal of alternative forms of education is on the rise. (Pondiscio et al., 2023). Specifically in the state of Mississippi, students can begin homeschooling at any time. However, "Mississippi does not have a law granting homeschooled students the right to participate in public school classes and activities; thus, the individual schools and school districts have the authority to decide whether to allow homeschooler participation" (HSLDA et al., 2020, p. 1). If homeschool students can partially enroll, they will be able to participate in an educational course or intracurricular activity (Kararo & Knobloch, 2017, p. 72). Yet students within a district that does not allow part-time public-school enrollment, would not be able to participate in a school-based

agriculture education course (Kararo & Knobloch, 2017, p. 72). If parents were not seeking part-time public-school enrolment options for agriculture education, they would be selecting an curriculum on their own and facilitating teaching themselves.

Parents role in Homeschooling

Homeschool parents are typically described as highly active in their child's education, having a strong belief that they are able to teach their children and give a full education outside of the organized school system (Van Galen, 1988). Beyond the conventional understanding of parents merely as caregivers, homeschooling places them in the formal position of being the primary instructors in their children's academic journey. Doing so parents have taken on a new role as formal educators, expanding upon their child's existing curriculum to provide them opportunities in other areas they may not have had before (Hamlin et al., 2022). In this role parents may seek support from homeschool support groups, co-ops, and or professional development opportunities. By participating in these groups parents are provided resources, expertise, and common values (Tilhou, 2019). Parents might find themselves not only guiding their children through traditional academic subjects but also taking on the role of formal educators in agricultural practices. Parents assume a multifaceted role in homeschooling. This expanded role reflects the diverse educational landscape of homeschooling, where parents navigate beyond conventional teaching boundaries to provide a well-rounded and tailored learning experience for their children.

Why do Parents Homeschool?

Historically, religious ideology was the primary reason for homeschooling, but this motivation has gradually decreased over time. Instead, parents are now opting for homeschooling

based on specific needs or individual beliefs (Collom, 2005). Transitioning from this historical context, research by Knowles (1988) highlights that parents may also choose homeschooling due to negative experiences within the public school system. Furthermore, homeschool literature suggests that families appreciate the opportunity and freedom that this flexible style of education brings (Hamlin et al., 2022). Building upon these insights, the National Household Education Survey Program's most recent findings indicate that parents' most common reasons for homeschooling include concerns about the school environment, the desire to provide moral instruction, and an emphasis on family life (Hudson et al., 2023).

Co-Ops in Homeschool

As homeschool has evolved over time the opportunities within the homeschool setting have changed as well. Homeschool families are seeking ways to expand their students learning, families have begun forming organizations that mimic schools, these groups are known as homeschool cooperatives or co-ops (Hill, 2000). These groups provide a variety of roles to assist homeschool families. Co-ops give shape, purpose, goal setting, and timelines to homeschool students and families (Safran, 2009). A less formal reason for parents participating in co-ops is for the opportunity to share resources and learn from one another (Anthony, 2015). Parents have the opportunity to teach in these cooperatives where they post their syllabi and assignments on the cooperatives website as well as administer and grade tests (Anthony, 2015). The idea of homeschooling becoming similar to traditional school began by families relying on one another and therefore created new institutions that looked similar to schools (Hill, 2000). Unlike public schools where families have to participate in all or nothing co-op families have the ability to pick and choose what they want out of the cooperative (Anthony, 2015). The freedom supporting those to join co-ops is linked to the parents still being the primary decision maker for the

children's education. Because these co-ops respect homeschool families educational decisions they are willing to give up some of their agency in decision making (Anthony, 2015).

Agriculture in Homeschool

The prevalence of rural living throughout the United States suggests that a considerable portion of homeschooling families may be rooted in agricultural backgrounds (Kelber, 2019). This adds an additional layer for homeschool parents that want to incorporate formal agriculture curriculum into their child's education. Increasing knowledge of agriculture and nutrition can help individuals make informed decisions. A society that understands agriculture, current economic, and environmental impacts could lessen the challenges facing agriculture by good decision making and providing support (Kovar & Henery, 2013, p. 168). Providing homeschool students with the opportunity to participate in agricultural education alongside their public-school counterparts could potentially help expand agricultural literacy.

If homeschool parents were to part-time enroll their students in school to receive agricultural curriculum, they may encounter difficulties depending on their location. Research has indicated a lack of comprehensive studies summarizing state education policies for homeschooled students, presenting an opportunity for exploration (Kovar & Ball, 2012). "The National FFA research agenda for 2013-2018 identified accessibility and inclusiveness of FFA as a top priority, stressing the importance of removing barriers to engage all young people enrolled in agricultural education..." (Crutchfield, 2013, p. 1). However, for homeschooled students to engage in agricultural classrooms, they must navigate national, state, and local regulations before gaining access to these opportunities (Kararo & Knobloch, 2017). These limitations affect potential access of a homeschool student to have the opportunity to gain agriculture literacy and excel in youth-organization activities.

In addition to policy, parents and students have other barriers affecting agriculture literacy within their homeschool programs. Specifically, understanding the value intracurricular activities have on a student's educational experience and how agriculture extracurriculars can supplement. Intracurricular activities act as an aid to educational programs while enhancing what is gained by participating in social interaction (Rockholt, 2013) that groups like FFA and 4-H can bring to a homeschoolers experience.

Homeschool 4-H programs in Virginia are using 4-H to supplement existing homeschool curriculum to help parents and students build upon their agricultural literacy. 4-H specifically helps supplement homeschool curriculum by including skills to help students become successful adults (Estep, 2021). Exploring further into parent's perceptions of factors affecting accessibility to extracurricular learning, is the goal of this review of literature.

Homeschool Policy

To understand what barriers homeschool parents face to integrate agriculture education into their child's curriculum, it is important to first understand education policy. The United States supreme court has never addressed homeschool policy but places the rights to the parents and the state (Kunzman, 2012). This poses a challenge for parents because of the lack of consistent policies throughout the states and accessibility for students. Phases of policies are implemented to target state policies throughout all 50 states to determine how it could directly impact agricultural education in homeschooling (Current Homeschool Law, 2016; Smith & Farris, 2016). Not only do students have challenges in homeschooling, but for students to be involved in an agriculture classroom and FFA, they must meet certain requirements that differ in every state. In Mississippi part-time public-school enrollment is left up to each school district to decide if homeschool students can partially enroll, for example, in an agriculture education

course or extracurricular activity (Kararo & Knobloch, 2017). If a student is within a district that does not allow homeschool part-time public-school enrollment, they would not be able to participate (Kararo & Knobloch, 2017). These limitations affect potential access of a homeschool student to have the opportunity to gain agriculture literacy and excel in youth-organization activities.

State Policy Limitations

Research was done by Kararo & Knobloch (2017) to gauge overall accessibility for students from state, local, and FFA policies to be able to easily participate in agricultural education and FFA. "Four regulatory policy categories emerged from analyzing state homeschooling regulations. Categories were formed but not identical to HSLDA state regulation criteria (None, Low, Moderate, High)" (Kararo & Knobloch, 2017, p. 43). These regulation criteria were defined based off overall access of policies for homeschool regulation in each state, and potential FFA access. High regulation in this research is very in-depth with monitoring students' progress and accessibility. Whereas low regulation has little to no monitoring of students while they are homeschooled. In each level of regulation, the access to agriculture education differs and varies based upon policy and FFA constitution's determining membership for homeschool students.

Table 1

Homeschool Families Potential Access Opportunities

State	Enrollment Type	Regulation	FFA Clause	Potential Access
Mississippi	District Determined	Low	Enrolled and/or planned course of study, SAE	Moderate
Florida	District determined	Moderate	Enrolled	Low
Tennessee	District determined	Moderate	Enrolled and majority vote	Low

(Kararo & Knobloch, 2017, p. 71-74)

The following information was collected throughout the United States homeschooled students to determine where regulation lies, not including the connection to agriculture. “Ten states (AK, CT, ID, IL, IN, MI, MO, NJ, OK, TX) do not require homeschool families to provide any notification to local or state education authorities of their intent to homeschool.” (Kararo & Knobloch, 2017, p. 44). In these states homeschool guidelines are non-existent. They can begin homeschooling with no bookkeeping or follow-up making the ability to homeschool relatively easy but could pose potential challenges to getting students involved in agriculture curricula. Because of the no bookkeeping parents have the potential to be unaware of opportunities within their district that they partially want to have their student still involved in. Due to the nature of limited resources or guidance to homeschool access, similar outcomes remain for agriculture

education access. “Fifteen states (AL, AZ, AR, CA, DE, KS, KY, MS, MT, NE, NV, NM, UT, WI, WY) have a low level of homeschooling regulation, only requiring that parents notify education authorities of their intent to homeschool” (Kararo & Knobloch, 2017, p. 43). Even in these states, it differs from who they are supposed to report their intent of homeschool to, causing confusion where families are expected to receive guidance.

“Twenty states (CO, FL, GA, HI, IA, LA, ME, MD, MN, NH, NC, ND, OH, OR, SC, SD, TN, VA, WA, WV) have a moderate level of homeschooling regulation. States in this category have a wide variety of required paperwork including notification, test scores, and/or student progress reports” (Kararo & Knobloch, 2017, p. 43). Homeschool families in these states receive moderating in their child's time while they are homeschooled. “Five states (MA, NY, PA, RI, VT) have a high level of homeschooling regulation. States in this category have thorough assessment requirements for homeschool students in addition to notification and monitoring of student progress” (Kararo & Knobloch, 2017, p. 43). In these highly monitored states, students are checked on periodically while monitoring benchmarks to check for understanding of student progress. These states allow for the highest level of pairing with agriculture curriculum due to their overall nature.

If students receive access to begin homeschooling from the state level, there could still be potential limitations to getting students into a classroom to participate in an agriculture course. Specifically, in the state of Mississippi students can begin homeschooling at any time but “Mississippi does not have a law granting homeschooled students the right to participate in public school classes and activities; thus, the individual schools and school districts have the authority to decide whether to allow homeschooler participation” (HSLDA et al., 2020, p. 1). With no clear guidelines explained by the state, each school district will have different rules

causing further limitations for parents and children trying to enroll in an agriculture education program.

Value of Extracurricular Learning in Homeschool

Extracurricular activities, such as sports and clubs, have the potential to impact a student's opportunity to further learning, 4-H and intracurricular activities such as FFA can for a student involved in agriculture. Along with the already existing curriculum, "the ability to participate in public school extracurricular activities might open doors for students and their futures that would not have been so easily opened beforehand" (Rockholt, E.D., 2013, p. 4).

For students to reach potential access to extracurricular activities they will have to go through their state and district policies before participating in these activities. Access is challenging for a homeschool student to participate in these clubs even though research determines "that participation may contribute to an increase of wellness in mental health, improved students' engagement in school and achievement" (Wilson, 2009, p. 10). Homeschool students still face the most challenges to get involved in these extracurricular activities to help aid agricultural curriculum.

Parents willingness to get their students involved is a potential way for a child to become agriculturally literate. By being involved in 4-H and FFA it can promote interaction with other adults; students then have the chance to form positive relationships and gain constructive feedback (Wilson, 2009). These other adults serving as advisors or club leaders can act as role models to the youth that they help lead and support in these extracurriculars. Bridging the gap of access and understanding of a homeschool parent's perceptions on their child's potential access in their state and district can help motivate the next steps.

FFA Membership Policy Limitations

FFA supplements agriculture curricula, although access for homeschooled students does differ and depends on state constitutions (Kararo & Knobloch, 2017). FFA membership policy has subtle variations of wording occurring among the first grouping of state FFA constitutions (least potentially inclusive language) including in Indiana, where the FFA "member must be enrolled in at least one approved course each year and maintain a supervised agricultural experience" (Kararo & Knobloch, 2017, p. 45). Students in a district with regulations against students coming to school to participate in an agricultural education course, would not be allowed to participate in FFA because of Indiana's FFA constitution. How students are homeschooled affects how they can be involved in school-based agricultural education courses, which determine if they can become an FFA member. The National FFA addresses homeschool students by clarifying FFA being part of a school-based instructional program, and there is no national provision against homeschool students (National FFA, 2023). However, some states may allow for homeschool students to participate in the career and technical education program and student organizations (National FFA, 2023). Each of these differing steps within policy creates more barriers for students who are seeking part-time public school enrolment to receive agriculture education.

4-H Programs

Extension 4-H programs provide an alternative for homeschool students who cannot participate in traditional school-based agricultural education programs due to strict criteria from state/district policies. Participating in 4-H is delivered from Extension agents under university supervision to provide young people a learning opportunity to express themselves in their communities. Specifically, in Tazewell County, Virginia 4-H implements a presentations

program for homeschool club teachers to prepare students for developing life skills (Estep, 2021). This program is a specific example of how integrating the connection of homeschool parents and students to agricultural education can impact students' understanding and learning of agricultural literacy.

Every 4-H homeschool club in Tazwell County participates in the 4-H presentations contest at the club, county, and district level (Estep, 2021). Although, if you were a parent who did not have your child participate in the homeschool club, you would not necessarily have this same opportunity unless you enrolled your child independently to a 4-H club on your own. Homeschool students that participate in 4-H to compete in this contest are provided learning objectives for teachers and parents to use as guidance when preparing. These guidelines not only meet objectives for the competition but for the students learning outcomes. Using this contest as a tool to help implement extracurricular activities into the existing homeschool education program to build upon those same skills learned in various courses. In Mississippi parents are directed to contact their local extension office to get their child involved (Mississippi State University Extension, 1970). Although there is no formal integration with homeschool programs in the state, parents can create their own 4-H group with other homeschool families or join a club. 4-H and FFA are youth organizations to supplement the learning that is done in an agriculture classroom, integrating the same opportunities for homeschool students can provide them similar access as a public or private school student would.

Discussion/Conclusion

There are a variety of options in order for a homeschool child receive agriculture education; the journey from point A to point B is far from streamlined and varies greatly among families. Access varies significantly across states, school districts, FFA membership policies,

and overall opportunities. Homeschool students deserve equal opportunities to learn about agriculture as their public and private school counterparts, given that five percent of all U.S. households have at least one homeschooled child (Fields, 2021). With a continuously growing population opting for homeschooling to gain control over their children's education due to distrust in the American school system, the need for equitable access becomes increasingly apparent. Investigating and understanding where specific aid is needed to help parents bridge the gap between homeschool education and agricultural curricula is essential for providing support to these homeschool families. Each requirement within homeschool policy has the potential to limit a student's access to agricultural classrooms, as research demonstrates varying factors affecting potential access across states. This creates a challenging landscape for students seeking access.

Theoretical Framework

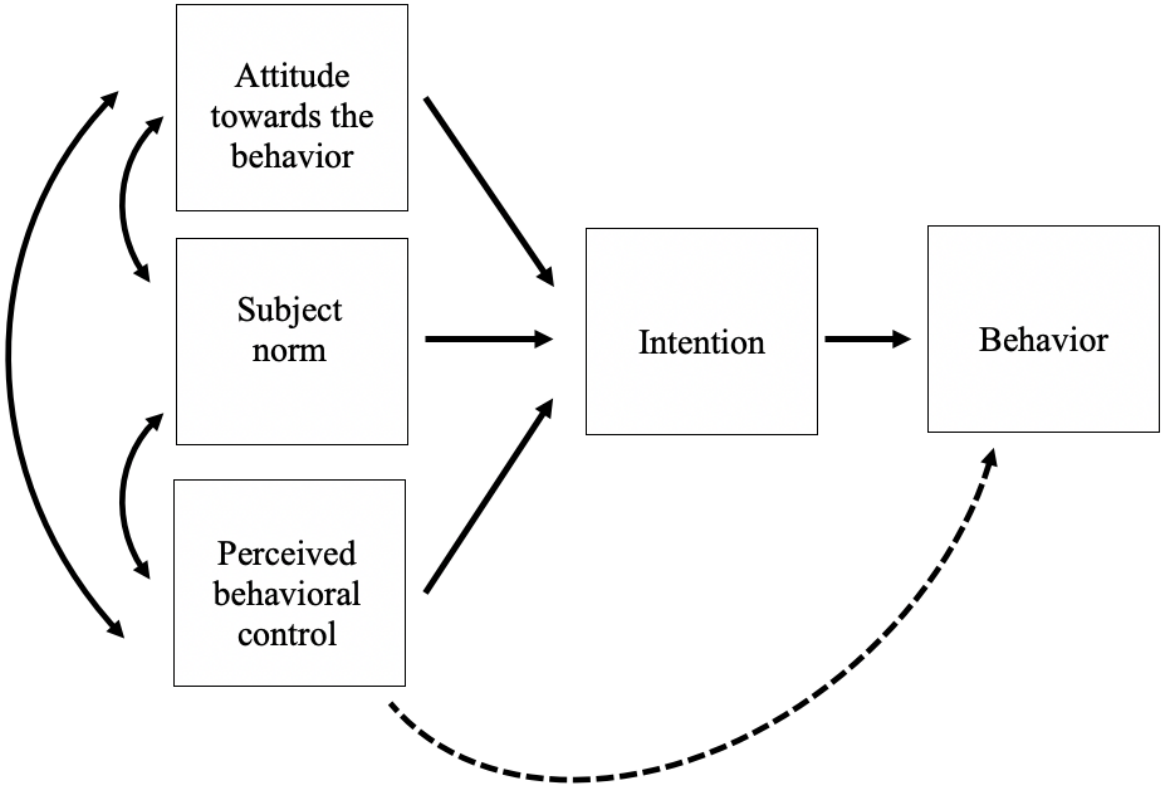
The research in this study is grounded in the Theory of Planned Behavior, which suggests that an individual's behavior is influenced by their intentions, which, in turn, are shaped by their attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). This model holds significant relevance for parents contemplating the integration of agriculture education into their homeschooling program. Parents who recognize the importance of agriculture, but do not value agriculture education, may lack the intention to incorporate it into their homeschool curriculum. Thus, their attitudes toward agriculture education play a pivotal role in determining the ease or difficulty of integrating such a curriculum.

Homeschooling families offer a unique context within the framework of the Theory of Planned Behavior, especially considering the adaptable nature of homeschool programs. Agriculture curriculum aligns well with homeschooling environments, offering hands-on

learning experiences that seamlessly fit into home-based education settings. Through agriculture courses, students not only gain knowledge but also have opportunities to apply their learning through field trips, laboratory experiments, and real-world experiences. The ultimate objective of integrating agriculture education into homeschool programs is to empower students to make informed decisions regarding agricultural activities and foster agricultural literacy. According to the Theory of Planned Behavior, individuals base their decisions on their attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). Therefore, the successful implementation of agriculture curriculum in homeschooling settings hinges on parents' attitudes toward agriculture, their perceptions of its importance, and their ability to exert control over the educational process.

Figure 1

The Theory of Planned Behavior model adapted from (Ajzen, 1991)



In compliance with the Theory of Planned Behavior, this study proposes that the decision-making process regarding the integration of agriculture education into homeschool programs is influenced by parents' intentions, which are, in turn, shaped by their attitudes and perceived behavioral control. Recognizing and comprehending these factors is crucial for effectively advocating for agriculture education in homeschooling environments and nurturing agricultural literacy among students.

Summary

A needs assessment should be conducted to gauge homeschool parents' perspectives on agriculture, their willingness to incorporate agricultural education into their curriculum, and the support they require. This assessment will help identify specific gaps, challenges, and support needed to introduce agriculture education to homeschool students. Future research on parents' perceptions will offer valuable insights to guide further progress. In the assessment, seeking what tools are needed to be provided to parents to help them teach agriculture to their students is crucial for future improvements. Learning how parents can get their child involved in agriculture extracurriculars to help enhance learning, and to overall promote agriculture literacy.

CHAPTER III

METHODOLOGY

Restatement of the Problem

There is a lack of research surrounding homeschool agriculture curriculum. Major studies have researched public school agriculture education but homeschool students are not connected. The limited knowledge on parents' perceptions of whether the incorporation of agriculture curricula could supplement their child's learning is unknown. The potential to supplement homeschool education with agriculture could help bridge the needs of parents building upon agricultural literacy.

Restatement of the Research Objectives

The purpose of this study is to determine homeschool parent perceptions regarding agriculture, agriculture curriculum, and willingness to incorporate. In doing this to better understand the relationship between homeschooling curriculum and the incorporation of agriculture. The research objectives are as follows:

Objective 1: Describe homeschool parents' perceptions regarding agriculture and agricultural education.

Objective 2: Determine homeschool parents' perspective of agriculture curricula and current curriculum implementation.

Objective 3: Identify where support is needed to promote homeschool parents' adoption of agriculture into existing curriculum.

Objective 4: Compare homeschool parent demographics to knowledge of resource availability of agriculture and willingness to incorporate agriculture topics.

Design of the Study

After IRB approval (IRB-23-166) (Appendix A) this study used descriptive statistics to describe the data set by generating summaries in order to interpret quantitative data of measures of central tendencies. A cross-sectional research design was used to take a sample of the population to make generalities of the overall population for the purpose of this study (Omair, 2015). Specifically, this study can take place in a short amount of time and ensures it is randomly selected with an appropriate probability technique (Omair, 2015).

Population and Sample

A sample of 79 homeschooling parents in Mississippi were recruited by nonprobability sampling through co-op groups, religious homeschool groups, and the Mississippi Home Educators association. Non-probability sampling is often used to make population estimates, the population of interest was defined prior to data collection (Baker et al., 2013). Considering homeschooling requires parental involvement, the population sampling consists of homeschool parents in the state of Mississippi. Research of perceptions regarding agriculture education curricula in the past have only involved public and private schools. To ensure the sample was representative of the population a small incentive of drawing an Amazon gift card would be awarded to two participants. There is no systematic data available on demographic characteristics of the homeschool population yet some (Ray, 2000; Rudner, 1999) have suggested that the homeschool population is generally White and of the middle class.

Instrumentation

The instrument used for this study was an adaptation of Collom (2005) "The ins and Outs of homeschooling Determinants of Parental Motivations and Student Achievement" instrument as well as Kelber's (2019) "Assessing Gaps in Homeschools' Curricula: A Focus on Agriculture." This instrument was designed to understand why parents homeschool, and their motivation to continue to homeschool (Collom, 2005). Yet, the questionnaires were adapted to focus on parents' perceptions of agriculture, agriculture curriculum, and willingness to teach agriculture lessons to their children. The adapted survey instrument (Appendix B) for this study was made to be finished within ten to fifteen minutes due to parents' busy schedules. In the questionnaire, areas were as outlined: (1) parents' perceptions on agriculture, (2) parents' perceptions on agriculture curriculum, and (3) parents' perceptions on teaching agriculture curriculum. Because this was an adapted survey of Collom's (2005) survey Cronbach's Alpha was used to determine reliability. Cronbach Alpha is used to report the measures and affective construct's reliability of the instrument (Taber, 2018). The reliability analyses were conducted in each theme of the study; attracted to home charter 0.79, ideological reasons 0.66, and family and children needs 0.58 contributing to internal consistency (Collom, 2005). When interpreting values of Cronbach Alpha, it is determined that values between 0.58-0.97 are satisfactory (Taber, 2018). To ensure content validity the survey was also screened by a panel of committee experts.

Part A: Demographics

The demographic section of the questionnaire contained five questions. These included standard demographic questions including race/ethnicity, gender, age, etc. Eight questions regarding participants homeschool involvement were included in this section. These questions

include inquiring about spouse involvement, length of time parents have homeschooled, and if their child is currently homeschooled.

Part B: Parent Perceptions Regarding Agriculture Education

The four questions found in this section of the questionnaire are based upon common perceptions for parent understanding of agriculture curricula. A Likert-type scale with points that range from “strongly agree” to “strongly disagree” was used to obtain the appropriate data.

Part C: Parent Perceptions to Agriculture Curricula

Fifteen questions can be found within this portion of the questionnaire. All of these questions are based on gauging parents' understanding of agriculture curricula. A Likert-type scale with points that range from “extremely likely” to “extremely unlikely” was used to obtain three questions. The remaining questions were prepopulated responses.

Part D: Understanding of aid needed for Parents Incorporation of Agriculture Curricula

Three questions can be found within this portion of the questionnaire. Questions in this section represented agriculture curriculum resources available, and agriculture literacy resources to homeschool parents.

Data Collection

Data were collected using a Qualtrics survey method. In this survey, focus was placed on the homeschool child's parent to determine their understanding of agriculture, perception, willingness to teach the curriculum, and what aid can be provided. Parents were contacted through email in the following Mississippi homeschool groups: Mississippi Home Educators Association, Mississippi Homeschool Support group, North Mississippi Home Educators Association, and Happy Homeschoolers of South Mississippi. In the emailed survey, a brief

surveyor description was supplied, survey description, and a direct link to the Qualtrics survey. Incentives were also noted in the email that two randomly selected participants will receive $50 gift cards. Parents answered the part of the survey using a five-point Likert scale with 1-extremely likely, 2-somewhat likely, 3-neither likely or unlikely, 4-somewhat unlikely, and 5-extremely unlikely.

This survey utilized Petrovčič (2016) distribution methods for data collection. Due to co-op schools operating Monday-Friday, weekends were excluded in the suggested time for contact attempts. Petrovčič (2016) stated that contact should be made between 78 and 160 hours, after the initial contact was sent. A shorter period during the initial contact to the follow up using email was suggested by Callegaro (2015). The initial email contact included a brief introduction of the researcher, and the survey which was emailed to co-op directors and officials on September 21, 2023. A second email was sent on September 27, 2023, 72 hours after the initial email was sent excluding the weekend. A third email was sent on October 5, 2023, 168 hours after the initial email was sent. Finally, the last email was sent on October 30, 2023, to collect any additional responses. Due to the nature some homeschool groups are connected through Facebook groups; posts were made in the groups to share the survey link.

Data Analysis

The IBM Statistical Package for Social Science (SPSS) was used to perform statistical analyses for this study. The researcher filtered the data set by removing incomplete datasets before analysis and downloading the data file from Qualtrics. The data analysis for this study consisted of descriptive statistical procedures. Descriptive statistics measuring central tendency were used to analyze the data from Part A, Part B, Part C. Descriptive statistics were used to answer the first, second, and third research objectives. Means, standard deviations, frequencies,

and percentages were reported. To answer the fourth research objective, a Chi-Square test was used to determine whether there were statistically significant differences between parent demographics, to knowledge of resource availability of agriculture, and willingness to incorporate agriculture topics. A significance alpha of 0.05 was used to determine if there was any significance between demographics of parents, knowledge of resources within agriculture education, and willingness to incorporate agriculture topics.

Figure 2

Davis' Correlation Coefficient Descriptors (Davis, 1971)

Correlation Coefficient Value (*r*)	**Correlation Strength**
0.70-1.00	Very strong
0.50-0.69	Strong
0.30-0.49	Moderate
0.10-0.29	Weak
0.01-0.09	Very weak

CHAPTER IV

RESULTS AND DISCUSSION

This study aimed to characterize the perceptions of Mississippi homeschool parents regarding agriculture, agricultural education, and their readiness to integrate agricultural curricula. Four research objectives were outlined to guide this investigation. Objective one aimed to assess homeschool parents' views on agriculture and agricultural education. Objective two determined to evaluate homeschool parents' perspectives on agricultural curricula and their current implementation. Objective three identified areas where support is required to encourage homeschool parents to integrate agriculture into their existing curriculum. Finally, objective four determined whether there was a correlation between Mississippi homeschool parent demographics, knowledge of agricultural resources, and their willingness to incorporate agricultural topics.

The results are reported in the following sections: (1) overview of demographic data, (2) parent perceptions regarding agriculture and agricultural education, (3) parents' perspectives regarding agriculture curricula and current implementation, (4) identifying where support is needed to promote parents' adoption of agriculture curricula, (5) correlation between parent demographics to knowledge of resources of agriculture and willingness to incorporate agriculture topics.

Overview of Demographic Data

Participants were asked 13 questions to obtain demographic data. Gender, marital status, county of residence, and education level were asked within this section of questioning. Additionally, involvement in homeschooling, current homeschooling status, length of time as a homeschool parent were also asked. Out of the 79 responses received, 96% (n = 76) were female and 2% (n = 2) were male, 1% (n = 1) preferred not to answer. Ninety six percent of participants who chose to answer this question identified as Caucasian (n = 76), 3% identified as African American (n = *3)* and only 1% (n = 1) identified as Asian. Participants were also asked the highest level of education they have received. The majority of participants (n = 37) received a bachelor's degree or completed some graduate school. Table 1 showcases the frequency and percentages for gender, ethnicity, and level of education.

Table 2

Overall Demographics of Mississippi Homeschool Parents (N = 79)

Variable	Category	Count
Gender	Female	76
	Male	2
	Prefer not to answer	1
Ethnicity	Asian	1
	African American	2
	Caucasian	76
Level of Education	Less than high school	0
	High school	4
	Vocational, Technical	24
	Bachelor's degree	37
	Graduate school	14

Moreover, 9% of participants have been homeschool parents a less than 1 year *(n* = 7), 32% have from 1-4 years (*n = 25),* 33% from 5-10 years (*n* = 26), and 27% more than 10 years (*n* = 21*).* Of those parents 72% indicated they were the primary educator for teaching the children (*n* = 57), 24% parents the responsibility was shared between themselves and their spouse (*n* = 19), and 4% indicated another response (*n* = 3). Respondents were additionally asked how they were involved in homeschool education. The majority of the respondents indicated they were parents/instructors at 80% (*n* = 63), 13% indicated they were parents only (*n* = 10), and 8% indicated other (*n* = 6). Table 2 shows the frequency and percentage for how long

parents have been homeschooling, who is the primary educator, and how they were involved in the homeschool program.

Table 3

Parent Length of Time Homeschooling, Primary Educator, and Involvement (N = 79)

Variable	Category	Count	%
Length of time as a parent	Less than 1 year	7	9%
	1-4 years	25	32%
	5-10 years	26	33%
	More than 10 years	21	27%
Primary educator	Only me	57	72%
	Only my spouse	0	0
	My spouse and I	19	24%
	Other	3	4%
Involvement in homeschooling	Parent only	10	13%
	Instructor only	0	0
	Co-op director	0	0
	Parent/Instructor	63	80%
	Other	6	8%

There are 82 counties in the state and 38 counties represented in this study. This question was a required response and could be assumed why two participants chose to write in Mississippi to move to the next question. Hinds, Desoto, Harrison, Jackson, and Lincoln counties were the

most highly represented, spanning from the northernmost to the southernmost parts of the state. Table 3 shows the frequency and percentage of parents in each county represented.

Table 4

Frequency and Percentage of Homeschool Parent Participants (N = 79)

Category	Count	%
Hinds	6	7.6%
Harrison	5	6.3%
Lincoln	5	6.3%
Tate	4	5.1%
Rankin	3	3.8%
Lauderdale	3	3.8%
Copiah	2	2.5%
Covington	2	2.5%
George	2	2.5%
Hancock	2	2.5%
Bolivar	2	2.5%
Madison	2	2.5%
Mississippi	2	2.5%
Oktibbeha	2	2.5%
Washington	2	2.5%
Attala	1	1.3%

Table 4 (continued)

Category	Count	%
Alcorn	1	1.3%
Humphreys	1	1.3%
Itawamba	1	1.3%
Jasper	1	1.3%
Jones	1	1.3%
Kemper	1	1.3%
Leake	1	1.3%
Lee	1	1.3%
Monroe	1	1.3%
Neshoba	1	1.3%
Noxubee	1	1.3%
Pearl River	1	1.3%
Pontotoc	1	1.3%
Stone	1	1.3%
Sunflower	1	1.3%
Tishomingo	1	1.3%
Union	1	1.3%
Webster	1	1.3%
Winston	1	1.3%

Understanding homeschool parents' perceptions of agriculture guides this study; parents were asked if they considered themselves farm families by specifying that farm families make their living producing and selling agriculture commodities, such as crops, livestock and livestock products, wood, and other fiber. Of those 79 participants that completed the survey 23% signified they were a farm family (n = 18), and 77% stated they were not a farm family (n = 61).

Objective One Results

Objective one was to determine parent perceptions regarding agriculture and agriculture education. Parents (N = 79) were asked 4 questions that were used to determine their views on agriculture and it being included in students curriculum. A Likert type scale was used as well as pre-populated responses. Some of the questions asked were as follows:

What is your perceived importance of including agriculture in homeschool?

What is the likelihood you would support a formal agriculture or agriculture science curriculum in the homeschool program if one was available?

What is the likelihood that you would implement a formal agriculture or agriculture science curriculum in the homeschool program if one was available?

To what extent do you feel competent teaching an agriculture or agricultural science curriculum if there was access to one?

Of the parents who responded, 90% of parents (n = 71) perceived agriculture as important to include in homeschool. Although, 48% of parents (n = 38) somewhat likely agreed that they would support a formal agriculture or agriculture science curriculum in the homeschool program. Yet, 51% (n = 40) of parents felt somewhat competent to teach an agriculture science curriculum if there was access to one. Table 4 shows the mean and standards deviation regarding parent perceptions about agriculture and agriculture education.

Table 5

Parent Perceptions Regarding Agriculture and Agriculture Education (N = 79)

Statement	*M*	*SD*
1. Perceived importance of including agriculture in homeschool.	1.24	0.76
2. Likelihood to support a formal agriculture or agriculture science curriculum in the homeschool program.	1.65	0.72
3. Likelihood to implement a formal agriculture or agriculture science curriculum in the homeschool program.	1.61	0.62
4. Extent of competency teaching an agriculture or agricultural science curriculum.	2.31	0.83

Note. Responses based on a 5-point rating scale with 1= Extremely Likely and 5 = Extremely Unlikely

Objective Two Results

Objective two measured homeschool parent perspectives of agriculture curricula and current implementation. Parents were asked 15 questions, 2 of which used a Likert type scale: Extremely likely = 1, Somewhat likely = 2, Neither likely nor unlikely = 3, Somewhat unlikely = 4, and Extremely unlikely = 5. The remaining questions were close ended made up of pre-populated responses. In total, 79 (N = 79) parents chose to respond to these questions. Forty nine percent (n = 39) of parents selected yes when asked if agriculture or agricultural science is formally included in the homeschool program. Of those parents who responded yes to including agriculture in the homeschool program, 38% (n =15) indicated they were somewhat satisfied and 38% were neither satisfied nor dissatisfied (n = 15) with the agriculture curriculum currently used. Furthermore, 41% (n = 33) of parents said there was not a structured curriculum for

agriculture or agricultural science activities in the homeschool program. Those who selected "no" were prompted why it was not included in the program, in which 52% (*n* = 17) parents indicated there were lack of resources. Table 5 shows the means and standards deviations of parent's perceptions of a structured agriculture curriculum currently used and competencies of teaching agriculture curricula.

Table 6

Parent Perceptions of Current Agriculture Curricula and Competency of Teaching (n = 39)

Statement	*M*	*SD*
1. Extent of satisfaction with agriculture curriculum currently used.	2.31	0.82
2. Extent of competency teaching agriculture curriculum currently used.	2.25	0.84

Note. Responses based on a 5-point rating scale with 1= Extremely Satisfied and 5 = Extremely Dissatisfied

Specific topics were provided for parents to identify what is covered in the homeschool program's agriculture or agricultural science curriculum. Twelve-point eight percent (*n* = 11) of parents selected crop production and animal production as the top agricultural subjects covered. Table 6 shows the following topics and counts included in homeschool programs in Mississippi.

Table 7

Topics Covered in the Agriculture or Agriculture Science Curriculum (n = 39)

Category	Count	**%**
Crop production	11	12.8%
Animal production	11	12.8%
Animal welfare	9	10.5%
Agriculture and the environment	8	9.3%
US agriculture	5	5.9%
World or global agriculture	4	4.7%
Farm economics	4	4.7%
Biofuels and agriculture	3	3.5%
Food waste	3	3.5%
Unknown	0	0

Additionally, parents were asked clarifying questions on resources used in the homeschool program to support curriculum implementation. Most of participants selected "yes" that online resources are used to support the homeschool program by 88% (n = 70). Yet those who selected "no" (n = 6) why they are currently not used 66% (n = 4) found no interest or need for online resources in the program. Currently, those that use online resources to support the homeschool program selected course content, and activities as their preferred choice by 24% (n = 54).

Objective Three Results

Identifying how support is needed from parents to promote the adoption of agriculture into existing curriculum is what guided objective three. Parents were given three questions to further understand how aid can be supported to promote agriculture curriculum. The type of questioning used was ranking, written responses, and a Likert Type scale. Those parents who previously selected "no" indicating they were not satisfied with the agriculture curriculum currently used, were prompted to a written response to explain why. A few of the responses were as follows:

"Just focused on homesteading and not commercial agriculture and a lot of grammar errors."

"There is no agriculture curriculum. There is only a few chapters in the science book about it."

Additionally, when asked how likely parents (N = 79) are to participate in professional development courses to improve teaching agriculture or agriculture science curriculum in the homeschool program 45% (n = 36) responded somewhat likely. Furthermore, parents (N = 79) were asked to rank their preference of instruction methods for professional enhancement courses. Sixty eight percent (n = 54) ranked recorded lessons as their top preference of enhancement course method. Whereas 51% (n = 41) of parents selected the classroom as their least preferred method of instruction.

Objective Four Results

Identifying the correlation between homeschool parent farm family status, knowledge of agriculture curriculum resources, and the willingness to incorporate agriculture topics into the program is what guided objective four. As previously stated, all correlation coefficients were interpreted using Davis (1971) descriptors. A statistically significant relationship did exist between participants farm family status and knowledge of agriculture curriculum resources X^2(1,

$N = 79) = 7.3$, $p = .007$. Additionally, a statistically significant relationship did not exist between participants farm family status and willingness to incorporate agriculture topics $X^2(3, N = 79) = 1.0$, $p = .795$. Finally, participants willingness to incorporate agriculture topics did not display a statistical significance to the frequency to the knowledge of resources $X^2(3, N = 79) = 4.1$, $p = .249$. Table 6 shows the correlation between farm family status, knowledge of agriculture curriculum resources, and the willingness to incorporate agriculture topics.

Table 8

Means and Comparison Between Farm Family Statues and Knowledge of Agriculture Curriculum Resources

Group	Reported knowledge of curriculum resources	
	Yes	No
Farm family	13	3
Non-farm family	26	30
Unknown	2	5

$X^2(1, N = 79) = 7.3$, $p = .007$

Table 9

Means and Comparison Between Farm Family Status and Willingness to Incorporate

	Reported likelihood to incorporate				
Group	Extremely Likely	Somewhat Likely	Neither likely nor unlikely	Somewhat unlikely	Extremely unlikely
Farm family	8	8	0	0	0
Non-farm family	23	27	2	1	0

$X^2(3, N = 79) = 1.0, p = .795$

Table 10

Means and Comparison Between Willingness to Incorporate and Knowledge of Resources

	Reported knowledge of curriculum resources				
Group	Extremely likely	Somewhat likely	Neither likely nor unlikely	Somewhat unlikely	Extremely unlikely
Farm activities are included	24	22	1	0	0
Farm activities are not included	7	13	1	1	0

$X^2(3, N = 79) = 4.1, p = .249$

Summary

Overall, many participants lacked agricultural knowledge and experience with agricultural curriculum. However, participants had positive perceptions regarding the

incorporation of agriculture into their child's homeschool curriculum with the appropriate tools. Participants agreed that it is important to include agriculture into the homeschool program. Participants also indicated their support for a formal agriculture or agriculture science curriculum for the homeschool program if there was one. As well as being likely to implement a formal agriculture or agriculture science curriculum if there was one available.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study is to determine the perceptions of homeschool parents in Mississippi incorporating formal agriculture curricula into their child's education. In doing this to better understand the relationship between homeschooling curriculum and the incorporation of agriculture. The research objectives were as follows:

Objective 1: Describe homeschool parents' perceptions regarding agriculture and agricultural education.

Objective 2: Determine homeschool parents' perspective of agriculture curricula and current curriculum implementation.

Objective 3: Identify where support is needed to promote homeschool parents' adoption of agriculture into existing curriculum.

Objective 4: Compare homeschool parent demographics to knowledge of resource availability of agriculture and willingness to incorporate agriculture topics

Overall, the majority of parents (n = 61) who participated in this study were not part of a farm family based upon the indicated description. Counties represented by participants were evenly distrusted across the state, from high rural areas to lower rural areas. It is possible that because parents are not directly rooted in agriculture themselves, they are unaware of the other opportunities to get their children access to agriculture education. Even if parents were aware of

opportunities in Mississippi, part-time public enrollment for an agriculture education course is left up to the school district to decide (Kararo & Knobloch, 2017). Yet this varies from district to district, most families do not have students who participate in activities provided by public schools (*n* = 58).

Conclusions for Objective One

RO 1: Describe homeschool parents' perceptions regarding agriculture and agricultural education.

Ninety percent (*n* = 71) of participants agreed agriculture is important to include in the homeschool program, yet only 48% (*n* = 48*)* of parents were somewhat likely to support a formal agriculture curriculum. This lack of support could be related to the limited information surrounding the options for homeschool families. This supports Kovar and Ball's (2012) findings that there is no explicit research conducted to summarize state education policies for homeschooled students. The ability for homeschool students to attend public school agriculture courses is left up to the district which varies across the state (Karo & Knobloch, 2017). Parents were unaware of all possible options in order for homeschool students to receive agriculture education, therefore making it difficult to fully support. The confusion surrounding agriculture education within the state could limit parents' willingness to support agricultural curricula.

Conclusions for Objective Two

RO 2: Determine homeschool parents' perspective of agriculture curricula and current curriculum implementation.

The findings from the examination of homeschool parents' perspectives on agriculture curricula and its current implementation align with the observations made by Kunzman (2012),

who highlighted the U.S. Supreme Court's lack of direct involvement in homeschool policies, emphasizing the rights of both parents and the state in shaping homeschooling approaches. Parents were asked if their students part-time public school enrolled to participate in an additional course such as agriculture education course. A variety of responses occurred, some parents stating: “part-time public-school enrolment is not allowed in Mississippi”, “our district does not allow”, and “we tried to but it didn’t work out, we will try again next year.” Each of these responses varying from one another shows the confusion around part-time public-school enrolment. Potentially because of the lack of directive from the U.S. Supreme court, states having conflicting regulations, parents cannot form a confident opinion around agriculture curricula. An additional aspect of this study involved questioning parents about the formal inclusion of agriculture or agricultural science in their homeschool programs.

Forty one percent of parents responded negatively (n = 33), indicating the absence of a formal agriculture curriculum. For parents to attempt to send their students part time to public school to receive agriculture education they will have to navigate state, and local regulations (Kararo & Knobloch, 2017). If parents were to choose not to send their student to public school part time, they would have to seek agriculture curriculum resources on their own. Further investigation into why agriculture was not formally integrated into their programs, diverse responses were obtained. Notably, 52% (n = 17) of parents cited a lack of resources as a primary reason for the omission. Reasons ranged from practical concerns such as "lack of resources available to high school-age students" to unique situations where parents believed their hands-on experience living on a farm already provided sufficient exposure to agricultural concepts. Some

respondents also mentioned having access to 4-H activities but cited time constraints as a hindrance to active participation.

In synthesizing these homeschool parent perspectives, it becomes evident that challenges exist in gaining access to formal agriculture curricula within the homeschooling context. Parents perspective of agriculture education and current implementation could be connected to confusion on how to gain access. This study found a need for more information for parents to facilitate the inclusion of agricultural education in homeschooling programs. The research echoes the situation in Mississippi, as indicated by Karo and Knoblock (2017), where part-time public-school enrollment for agriculture education courses or extracurricular activities is contingent upon the policies of individual school districts. This parallel underscores the broader challenges in accessing agricultural education, whether in homeschooling or in part-time public-school enrollment, thus emphasizing the importance of addressing resource constraints

Conclusions for Objective Three

RO 3: Identify where support is needed to promote homeschool parents' adoption of agriculture into existing curriculum.

Parents ranked their preferred instructional methods for professional enhancement courses to give a foundation of where to begin aid. The Theory of Planned Behavior (Ajzen, 1991) suggests that a person’s behavior is based upon their attitudes, subject norms, and perceived behavioral control. Forty five percent (n = 36) of parents responded somewhat likely to participating in professional development courses. Although parents are somewhat likely to participate in professional development, according to the Theory of Planned Behavior, parents also need to perceive agriculture as important to incorporate it. Parents who participate in professional development courses tailored to teaching agriculture, could also indirectly have their

beliefs towards agriculture change. In professional development groups parents are provided with resources, expertise, and common values (Tilhou, 2019). Understanding the resources parents need to incorporate agriculture can encourage agriculture curriculum being included in homeschool students curriculum.

Conclusions for Objective Four

RO 4: Compare homeschool parent demographics to knowledge of resource availability of agriculture and willingness to incorporate agriculture topics.

Statistical significance existed between farm family status and parents' knowledge of resources. Although no statistical significance existed between farm family status and willingness to incorporate. Where the Ajzen (1991) theoretical framework The Theory of Planned Behavior model supports these conclusions that successful implementation of agriculture curriculum in homeschooling settings hinges on parents' attitudes toward agriculture, their perceptions of its importance, and their ability to exercise control over the educational process. Some families considered themselves rural and their knowledge of resources was greater than those who were not farm families. Yet, farm family status cannot be dependent upon parents buy in to agriculture curriculum. Parents must also perceive agriculture as important and plan to start implementing agriculture curriculum before a behavior change will take place in regards to agriculture education.

Summary

Mississippi homeschool parents had limited agricultural experience and experience in teaching agriculture. However, they did have positive perceptions regarding the incorporation of agriculture into their students education. Parents agreed that students should know where their

food, fiber, and fuel come from. Additionally, those who did incorporate agriculture topics were able to identify what specifically they were including in their student's curriculum. To see an increase in the incorporation of agricultural activities and curriculum, parents were able to pinpoint what resources they would need. A chi-square test was used to determine whether there were any statistically significant differences between the selected demographics, knowledge of agriculture, and willingness to incorporate agriculture topics. Although there was a statistical difference between farm family status and resources, we cannot generalize for the population of Mississippi because of the small sample size.

Recommendations

Through the findings of this study, there are several recommendations that can be made for future practitioners and researchers.

Recommendations for Practitioners

Agricultural literacy is increasingly recognized as a pressing concern nationwide (Chapman and Lindner, 2018). Individuals are lacking awareness of the sources of their food, fiber, and fuel. To make well-informed decisions on matters such as policy, natural resources, environmental challenges, and employment opportunities within the industry, it is crucial for society to be agriculturally literate (Lewis, 2018). Achieving this goal requires a comprehensive understanding of the societal, financial, and natural aspects of agriculture (Lewis, 2018). Thus, making agricultural education a priority for parents responsible for students' education across all grade levels in the United States.

However, Mississippi homeschool parents have stated they need additional resources to incorporate agriculture into their students' education effectively. Therefore, it is recommended

that agriculture professionals such as extension agents, promote existing resources and teaching materials to homeschool organizations and families in Mississippi. These resources could include activities, lesson plans, and videos that parents could include in core subjects. Agriculture educators and Mississippi State Extension professionals should be aware if they work within a district that allows part-time public-school enrolment, by being knowledgeable in what options homeschool families have when pertaining to access to agriculture education. Understanding homeschool district rules, can provide families resources to either get their child involved part time in public school, teach curriculum themselves, or to participate in agriculture extracurricular activities. Additionally, homeschool parents should be encouraged to investigate on their own for educational resources and materials available in Mississippi, such as the Mississippi Farm Bureau Agriculture in the Classroom curriculum. Programs like this provide teachers with guided lesson plans to integrate agriculture into their classrooms, which homeschool parents could also adapt for their students' curriculum.

In conjunction with additional teaching resources for homeschool parents, professional development opportunities tailored to agriculture should be explored as well. Agriculture education experts should investigate homeschool grants and funding to help cover professional development costs. Additionally, parents are encouraged to continue to network in co-op groups or homeschool parent organizations sharing resources with one another. Homeschool parents should contact their local Mississippi State Extension agent who have the resources to help facilitate programming for parents to become educated in teaching agriculture curriculum. Doing this, regardless of homeschool parents experience with agriculture themselves they can have support to comfortably teach their child agriculture topics. Homeschool parents within the same community are also encouraged to support one another through sharing ideas and resources

within their area. For example, some homeschool families in Mississippi are involved in agriculture. Hosting a field day for fellow homeschool parents to come tour their farm and learn from other like-minded individuals can foster agriculture literacy. If partnering with a homeschool farm family isn't possible reaching out to your county extension agent can provide further agriculture opportunities within your community.

Additionally, it is recommended to encourage student involvement in agriculture extracurricular activities. These activities help students make further connections with their learning. Students participating in 4-H or FFA are able to receive agriculture opportunities outside of a structured curriculum. Responsibility, leadership, and communication skills are skills students could gain from these organizations in addition to agriculture literacy. Joining a 4-H club or participating in the local FFA chapter promotes students ability to use the knowledge and skills they learned from their curriculum to real world application. Extension should provide parents a streamlined resource to integrate agriculture into their homeschool program. Doing this can further promote adoption. If parents understand what their options are within their county to either part-time enroll, teach agriculture curriculum themselves, or to participate in agriculture extracurriculars they may be more inclined to be involved.

Recommendations for Researchers

Due to a lack of research on agriculture and inclusion in homeschool curricula, it is advisable to replicate this study in various states. Additionally, conducting a similar investigation in Mississippi, focusing on distinct regions, could provide insights into the diverse educational landscape. Collaboration with extension offices, knowledgeable about their respective communities, can facilitate this process. Working with extension offices could provide further insight into Mississippi homeschool parent interactions with agriculture extracurriculars like 4-

H. Homeschool parents in this study seemed interested in exploring agriculture education. Moreover, findings indicated that while a majority of parents consider agriculture important in homeschooling, only 50% of participants reported a likelihood of incorporating it into their students' learning. Exploration into costs of lessons, activities, and experiences in homeschooling and how it affects parents willingness to include agriculture education. There potentially could be cost barriers that were not explored that limited parents to implement agriculture education.

To comprehend why homeschool families do not fully incorporate agriculture curriculum or extracurriculars, further research is imperative. Investigating the factors influencing parents' decisions regarding agriculture literacy and integration into education is crucial. Furthermore, a significant gap exists in understanding homeschool parents' perceptions, attitudes, and knowledge concerning agriculture. This information is pivotal for assessing the current state of agricultural education in homeschooling. To further address this gap, research should delve into students' perspectives, attitudes, and knowledge regarding agriculture. Students could provide insight to understanding what resources they would like to see their parents initiate when it comes to agriculture curriculum.

REFERENCES

About Us. National FFA Organization. (2023, August 8). https://www.ffa.org/about/

Agricultural Education. National FFA Organization. (2019, January 14). Retrieved February 27, 2023, from https://www.ffa.org/agricultural-education/

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-t

Anthony, K. (2015). Educational cooperatives and the changing nature of home education: Finding balance between autonomy, support, and accountability. *The Journal of Unschooling and Alternative Learning, 9*(18). http://jual.nipissingu.ca/wp-content/uploads/sites/25/2015/03/v9183.pdf

Baker, M., Robinson, S., & Kolb, D. (2012). Aligning Kolb's experiential learning theory with a comprehensive agricultural education model. *Journal of Agricultural Education*, *53*(4), 1–16. https://doi.org/10.5032/jae.2012.04001

Baker, R., Brick, J. M., Bates, N. A., Battaglia, M., Couper, M. P., Dever, J. A., et al. (2013). Report of the AAPOR task force on nonprobability sampling. American Association for Public Opinion Research. Retrieved from http://www.aapor.org/AM/Template. cfm?Section=Reports1&Template=/ CM/ContentDisplay.cfm&ContentID =5963

Basham, P. (2001). Home-schooling: From the extreme to the mainstream. Public Policy Sources, 51, 3-18.

Behrman, J. R., & Stacey, N. G. (2014). *Social benefits of Education*. University of Michigan Press.

Bruce, M. (2009, July 3). Duncan promotes charter school debate. ABC News. Retrieved from http://www.abcnews.go.com.

Burrows, M., Sorensen, T., & Spielmaker, D. (2019, November 30). *Assessing the acceptance of incorporating agriculture into elementary school curriculum.* Journal of Agricultural Education. Retrieved November 1, 2022, from https://eric.ed.gov/?id=EJ1263415

Callegaro, M., Manfreda, K. L., & Vehovar, V. (2015). *Web survey methodology*. Sage.

Chapman, D. L., & Lindner, J. R. (2018). Teacher perception of the Georgia middle school agricultural education curriculum. In *Proceedings of the Southern Region Conference, American Association of Agricultural Education* (pp. 95-109).

Crutchfield, N. R. (Ed.) (2013). National research priority interests: National FFA Organization's research priority areas for 2013-2018. Indianapolis, Indiana: National FFA Organization, Partner Services Division

Current Homeschool Law. (2016, February 17). Retrieved from http://www.responsiblehomeschooling.org/policy-issues/current-policy/

Collom, E. (2005). The Ins and outs of homeschooling. *Education and Urban Society*, *37*(3), 307–335. https://doi.org/10.1177/0013124504274190

Comer, J. P. (1997, July 1). *The home-school team: An emphasis on parent involvement*. Edutopia. Retrieved February 27, 2023, from https://www.edutopia.org/home-school-team

Dewey, J. (1938). Education and experience. New York, NY: Simon and Schuster.

Estep, T. (2021, March 8). *4-H presentation contest in Homeschool learning: A case study*. VTechWorks Home. Retrieved November 15, 2022, from https://vtechworks.lib.vt.edu/handle/10919/102633

Fan, X., Chen, M. Parental Involvement and Students' Academic Achievement: A Meta-Analysis. *Educational Psychology Review* **13**, 1–22 (2001). https://doi.org/10.1023/A:1009048817385

Family Farms. National Institute of Food and Agriculture. (n.d.). https://www.nifa.usda.gov/grants/programs/family-small-farm-program/family-farms

Fields, C. E. and J. (2021, October 8). *Census Bureau's Household Pulse Survey shows significant increase in homeschooling rates in fall 2020*. Census.gov. Retrieved November 28, 2022, from https://www.census.gov/library/stories/2021/03/homeschooling-on-the-rise-during-covid-19-pandemic.html

Green, C. L., & Hoover-Dempsey, K. V. (2007, February). *Why do parents homeschool? A systematic examination of parental ...* Retrieved January 31, 2023, from https://journals.sagepub.com/doi/10.1177/0013124506294862

Hamlin, D., By, Peterson, D. H. P. E., Hamlin, D., Peterson, P. E., Daniel HamlinAuthor BioPaul E. PetersonAuthor Bio, Bio, D. H. A., Bio, A., & Bio, P. E. P. A. (2022, December 21). *Homeschooling skyrocketed during the pandemic, but what does the future hold?* Education Next. Retrieved February 28, 2023, from https://www.educationnext.org/homeschooling-skyrocketed-during-pandemic-what-does-future-hold-online-neighborhood-pods-cooperatives/

Hamlin, Daniel. "Homeschool Happens Everywhere: LESS FORMAL INSTRUCTION, BUT MORE FAMILY AND COMMUNITY ACTIVITIES." *Education Next*, vol. 20, no. 4, fall 2020, pp. 28+. *Gale Academic OneFile*, link.gale.com/apps/doc/A637025131/AONE?u=anon~fbf6a690&sid=googleScholar&xid=28922879. Accessed 8 Jan. 2024.

Hill, P.T. (2000). Home schooling and the future of public education. Peabody Journal of Education, 75 (1/2), 20- 31.

Home school. The Mississippi Department of Education. (n.d.). Retrieved November 14, 2022, from https://www.mdek12.org/OCSA/HS

HSLDA July 15, Hslda, 15, J., & Tags: Getting Started Homeschooling 101 How to Homeschool Legally Knowing Your Rights Legal . (n.d.). *Public School Access for Homeschoolers in Mississippi*. HSLDA. Retrieved November 14, 2022, from https://hslda.org/post/public-school-access-for-homeschoolers-inmississippi#:~:text=Mississippi%20does%20not%20have%20a,whether%20to%20allow%20homeschooler%20participation.

Hudson, L., Kaatz , T., Battle, D., Hall, J., Bahr, S., & Eyster, S. (2023, September). *2019 Homeschooling and Full-Time Virtual Education Rates*. National Household Education Surveys Program (NHES). https://nces.ed.gov/nhes/homeschooling.asp

Kararo, M. J., & Knobloch, N. A. (2017, November 30). *An analysis of education-related policies regarding the participation potential of homeschool students in agricultural education and FFA.* Journal of Agricultural Education. Retrieved September 20, 2022, from https://eric.ed.gov/?id=EJ1192625

Kelber, L. (2019). Agriculture curriculum needs of homeschooling parents: A case study (Doctoral dissertation).

Kittredge, B. (2020, November 12). *Number of homeschoolers in Mississippi rises*. Mississippi Center for Public Policy. Retrieved February 5, 2023, from https://mspolicy.org/number-of-homeschoolers-in-mississippi-rises/

Kunzman, R. (2012). Education, schooling, and children's rights: The complexity of homeschooling. Educational Theory, 62(1), 75-89. doi:10.1111/j.1741-5446.2011.00436.x

Knowles, J. G. (1988). Parent's rationales and teaching methods for home-schooling: The roleof biography. Education and Urban Society,21(1), 69-84.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Pearson Education Ltd.

Kovar, K. A., & Ball, A. L. (2012, November 30). *Two decades of Agricultural Literacy Research: A synthesis of the literature.* Journal of Agricultural Education. Retrieved January 31, 2023, from https://eric.ed.gov/?id=EJ1122296

Kovar, K. A., & Henry, A. L. (2013). Two Decades of Agricultural Literacy Research: A Synthesis of the Literature. *Journal of Agricultural Education, 54*(1), 167-178. Retrieved from http://www.jae-online.org/attachments/article/1732/54.1.pdf#page=16

Lewis, L. J., Rayfield, J., & Moore, L. L. (2012). Supervised agricultural experience: An examination of student knowledge and participation. Journal of Agricultural Education, 53(4), 70-84. doi:10.5032/jae.2012.04070

Massoni, E. (2011). Positive effects of extra curricular activities on students. *Essai, 9*(1), 27.

"Perception." Merriam-Webster.com Thesaurus, Merriam-Webster, https://www.merriam-webster.com/thesaurus/perception. Accessed 30 Jan. 2023.

Martin, J. (2022, September 16). *What is homeschooling? A guide for parents and students*. Parents. Retrieved February 27, 2023, from https://www.parents.com/kids/education/home-schooling/homeschooling-101-what-is-homeschooling/

Merriam-Webster. (n.d.). Extracurricular. In Merriam-Webster.com dictionary. Retrieved January 2, 2024, from https://www.merriam-webster.com/dictionary/extracurricular

National FFA. (2023, April 19). *Can home-schooled students join FFA?*. FFA Help Center. https://help.ffa.org/articles/can-home-schooled-students-join-ffa/#:~:text=Because%20FFA%20is%20part%20of,participate%20in%20the%20student%20organizations.

Omair, A. (2015, July). *Selecting the appropriate study design for your research: Descriptive ...* Retrieved February 6, 2023, from https://www.researchgate.net/publication/281223251_Selecting_the_appropriate_study_design_for_your_research_Descriptive_study_designs

Petrovčič, A., Petrič, G., & Manfreda, K. L. (2016). The effect of email invitation elements on response rate in a web survey within an online community. *Computers in Human Behavior*, *56*, 320-329.

Pondiscio, R., Murray, J., & Gadfly, O. E. (2023). *Rural School Choice is more common than you think*. The Thomas B. Fordham Institute. https://fordhaminstitute.org/national/commentary/rural-school-choice-more-common-you-think#:~:text=Rural%20families%20are%20twice%20as,of%20rural%20students%20are%20homeschooled.

Safran, L. (2009). Situated adult learning: The home education neighborhood group. The Journal of Unschooling and Alternative Learning, 3. Retrieved December 3, 2012, from http://www.nipissingu.ca/jual/Archives/V326/v3262.pdf

Smith, J. M., Esq., & Farris, M. P., Esq. (2016). State laws. Retrieved February 25, 2016, from https://www.hslda.org/laws/default.asp?

Talbert, B. A., & Balschweid, M. A. (2004). Engaging students in the agricultural education model: Factors affecting student participation in the National FFA Organization. Journal of Agricultural Education, 45(1), 29-41. doi:10.5032/jae.20

Taber, K.S. The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Res Sci Educ* **48**, 1273–1296 (2018). https://doi.org/10.1007/s11165-016-9602-2

Terry Jr, R., Herring, D. R., & Larke Jr, A. (1992). Assistance needed for elementary teachers in Texas to implement programs of agricultural literacy. *Journal of Agricultural Education*, *33*(2), 51-60.

Tilhou, R. (2019). Contemporary homeschool models and the values and beliefs of home educator associations: A systematic review. *Journal of School Choice*, *14*(1), 75–94. https://doi.org/10.1080/15582159.2019.1616992

Topp, C. (2014). *Homeschool co-ops: How to start them, run them and not burn out*. Ambassador Publishing.

Ray, B. (2011). 2.04 Million homeschool students in the United States in 2010. National Home Education Research Institute. http://www.nheri.org/

Ray, B. D. (2000). Home-schooling: The ameliorator of negative influences on learning?Peabody Journal of Education,75(1, 2), 71-106.

Rockholt, E. D. (2013). *Homeschool participation in public school extracurricular activities in tennessee: A case study* (Order No. 3552100). Available from ProQuest Dissertations & Theses Global. (1293031826). https://login.proxy.library.msstate.edu/login?url=https://www.proquest.com/dissertations-theses/homeschool-participation-public-school/docview/1293031826/se-2

Rudner, L. M. (1999). Scholastic achievement and demographic characteristics of homeschool students in 1998. Education Policy Analysis Archives,7(8), 1-32.

Rural Health. Mississippi State University Extension Service. (2019). http://extension.msstate.edu/food-and-health/rural-health#:~:text=By%20comparison%2C%2054%25%20of%20Mississippi's,considered%20to%20be%20medically%20underserved.

Van Galen, J. (1988). Ideology, curriculum, and pedagogy in home education. Education andUrban Society,21(1), 52-68.

Wang, K., Rathbun, A., and Musu, L. (2019). School Choice in the United States: 2019 (NCES 2019-106). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved March 24, 2021 from https://nces.ed.gov/pubsearch.

Wilson, N. (2009, January 1). *Impact of extracurricular activities on students*. MINDS@UW Home. Retrieved November 28, 2022, from https://minds.wisconsin.edu/handle/1793/43405

What is SBAE?. SBAE. (n.d.). https://sbae.org/sbae/what-is-sbae/#:~:text=School%2Dbased%20agricultural%20education%20(SBAE,dormitory%2C%20post%2Dprimary%20schools.

What is 4-H?. National 4-H Council. (2023b, September 28). https://4-h.org/about/

Zane, L. (2021, March 17). *20 things I learned about homeschooling: A Parenting Resources Guide*. Hand in Hand Parenting. Retrieved March 1, 2023, from https://www.handinhandparenting.org/2020/08/how-do-i-homeschool-my-child/?https%3A%2F%2Fhandinhand.lpages.co%2Fanger-ebook-giveaway%2F%3Futm_source=Google%2B&utm_medium=online&utm_campaign=Reaching%2Bfor%2Byour%2Bangry%2Bchild%2B&gclid=CjwKCAiAjPyfBhBMEiwAB2CCIuQiVtgDrldtjEBCXyUg5XaMhiek3N6ylZL5yJs8Q4lKwqT6gTkNQhoCCwYQAvD_BwE

4-H. Mississippi State University Extension Service. (1970a, March 1). http://extension.msstate.edu/4-h

APPENDIX A

IRB APPROVAL LETTER

MISSISSIPPI STATE UNIVERSITY

Office of Research Compliance & Security
Institutional Review Board for the Protection of Human Subject in Research
301 Research Blvd.,Starkville, MS 39759
P. 662.325.3294
www.orc.msstate.edu

NOTICE OF DETERMINATION FROM THE HUMAN RESEARCH PROTECTION PROGRAM

DATE:	September 07, 2023
TO:	Morrison, Carley, School of Human Sciences, McCubbins, OP;Benson, Jessica;Lemley, Stephanie
PROTOCOL TITLE:	Are homeschool parents willing to incorporate agriculture into their child's education? Parent's perceptions of agriculture and desire to teach their child agriculture curriculum.
FUNDING SOURCE:	None
PROTOCOL NUMBER:	IRB-23-166
	Approval Date: September 07, 2023 Expiration Date: September 06, 2028

EXEMPTION DETERMINATION

The review of your research study referenced above has been completed. The HRPP had made an Exemption Determination as defined by 45 CFR 46.104(d)2. Based on this determination, and in accordance with Federal Regulations, your research does not require further oversight by the HRPP.

Employing best practices for Exempt studies is strongly encouraged such as adherence to the ethical principles articulated in the Belmont Report, found at www.hhs.gov/ohrp/regulations-and-policy/belmont-report/# as well as the MSU HRPP Operations Manual, found at www.orc.msstate.edu/humansubjects. As part of best practices in research, it is the responsibility of the Principal Investigator to ensure that personnel added after this Exemption Determination notice have completed IRB training prior to their involvement in the research study. Additionally, to protect the confidentiality of research participants, we encourage you to destroy private information which can be linked to the identities of individuals as soon as it is reasonable to do so.

Based on this determination, this study has been inactivated in our system. This means that recruitment, enrollment, data collection, and/or data analysis **CAN** continue, yet personnel and procedural amendments to this study are no longer required. **If at any point, however, the risk to participants increases, you must contact the HRPP immediately. If you are unsure if your proposed change would increase the risk, please call the HRPP office and they can guide you.**

If this research is for a thesis or dissertation, this notification is your official documentation that the HRPP has made this determination.

If you have any questions relating to the protection of human research participants, please contact the HRPP Office at irb@research.msstate.edu. We wish you success in carrying out your research project.

Review Type:	EXEMPT
IRB Number:	IORG0000467

APPENDIX B

ADAPTED VERSION OF COLLOM'S AND KELBER'S HOMESCHOOL SURVEY

Are homeschool parents willing to incorporate agriculture into their child's education?

Survey Flow

Block: (34 Questions)

Page Break

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EXTENSION
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DIVISION OF AGRICULTURE, FORESTRY AND VETERINARY MEDICINE

Start of Block:

IRB Approval Number: IRB-23-166

Title of Research Study: Are homeschool parents willing to incorporate agriculture into their child's education? Parent's perceptions of agriculture and desire to teach their child agriculture curriculum.

Researcher(s): Allyson Moore, Mississippi State University, Dr. Carley Morrison, Mississippi State University

We would like to ask you to participate in a research study. If you participate in this study, you will be asked to complete a survey that will take about 15 minutes to complete.

The study consists of a 34-question questionnaire for homeschool parents of Mississippi. If you wish to participate in this survey, you will have the opportunity to be entered into a drawing for a $25 Amazon gift card! There are two chances to win one of two gift cards that are available.

If you have any questions about this research project, please feel free to contact Allyson Moore at akm564@msstate.edu or Carley Morrison at cpc215@msstate.edu

Please understand that your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue your participation at any time without penalty or loss of benefits.

MSU researchers and their collaborators may use the data collected in this study for future research purposes and may share some of the data with others. Sharing data is part of research and may increase what we can learn from this study. Study staff will protect your personal information closely so no one will be able to connect your responses and any other information that identifies you. Often, data sharing is required as a condition of funding or for publishing study results. It is also needed to allow other researchers to validate study findings and to come up with new ideas. Your data may be shared with researchers at MSU and other institutions, for-profit companies, sponsors, government agencies, and other research partners. Your data may also be put into government or other databases/repositories. You will not be identified in any publication from this study.

Thank you for agreeing to participate in our research. Before you begin, please note that the data you provide may be collected and used by Qualtrics as per its privacy agreement. Additionally, this research is for residents of the United States over the age of 18; if you are not a resident of the United States and/or under the age of 18, please do not complete this survey.

Note: Qualtrics has specific privacy policies of their own. You should be aware that these web services may be able to link your responses to your ID in ways that are not bound by this consent form and the data confidentiality procedures used in this study. If you have concerns, you should consult these services directly.

To make sure that your rights as a research participant have been protected, after your participation in the research study, the MSU HRPP would like for you to complete this survey.

Your answers will help us make sure that research participants are protected.
https://msstate.co1.qualtrics.com/jfe/form/SV_5dMg4uHnw8tU5D0

The MSU HRPP/IRB has granted this Exemption Determination, IRB Approval Number: IRB-23-166.

Page Break

Q1 How are/were you involved homeschool education?

- ○ Parent only (1)
- ○ Instructor only (2)
- ○ Co-op director only (3)
- ○ Parent/Instructor (4)
- ○ Other (5) _____

Skip To: Q33 If Q1 = 2
Skip To: Q33 If Q1 = 3
Skip To: Q33 If Q1 = 5

Page Break

X→

Q2 Is your child(ren) currently homeschooled?

- ○ Yes (1)
- ○ No (2)

Skip To: Q4 If Q2 = 1

Page Break

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Display This Question:
If Q2 = 2

X→

Q3 Has your child(ren) been homeschooled in the past?

- Yes (1)
- No (2)

Skip To: Q27 If Q3 = 2

Page Break

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Q4 Why did your child(ren) stop homeschooling?

- [ ] Children are all past high school age (1)
- [ ] I put my kids into the public school system (2)
- [ ] Other (3) _____

Page Break

Q5 How long have you been a homeschool parent or guardian?

- Less than 1 year (1)
- 1-4 years (2)
- 5-10 years (3)
- More than 10 years (4)

Page Break

Q6 Parents or guardians sometimes enroll children in activities provided by public schools. Please indicate at what level your children are or have been enrolled in public school activities.

- [ ] Pre-K (1)
- [ ] Kindergarten (2)
- [ ] Grade 1-3 (3)
- [ ] Grade 4-5 (4)
- [ ] Middle School 6-8 (5)
- [ ] Junior High 9 (6)
- [ ] Senior High 10-12 (7)
- [ ] Does not participate (8)

Page Break

Display This Question:

If Q6 = 8

Q7 You indicated that you do not formally include public school activities in the homeschool program, can you identify why not?

- ○ Not enough time (1)
- ○ No interest (3)
- ○ Other (4) _____

Page Break

Q8 Please indicate who has the primary responsibility for teaching the homeschool child(ren)

- ○ Only me (1)
- ○ Only my spouse (2)
- ○ My spouse and me (3)
- ○ Other (4) _____

Page Break

Q9 Farm families make their living producing and selling agriculture commodities, such as crops, livestock and livestock products, wood, and other fiber. Would you consider your family a farm family?

- ○ Yes (1)
- ○ No (2)

Page Break

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Q10 Do you formally include agriculture or agricultural science in the homeschool program?

- Yes (1)
- No (2)

Page Break

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Display This Question:

If Q9 = 2

Q11 You indicated that you do not formally include agriculture or agricultural science in the homeschool program, can you identify why not?

- ○ Not enough time (1)
- ○ Lack of resources (2)
- ○ Other (3) _____

Page Break

Q12 Is there a structured curriculum for the agriculture or agricultural science activities in the homeschool program?

- ○ Yes (1)
- ○ No (2)

Page Break

Display This Question:

If Q11 = 1

X→

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Q13 Please select which of the following are covered in the agriculture or agricultural science curriculum in the homeschool program.

- [ ] Crop Production (1)
- [ ] Animal Production (2)
- [ ] US Agriculture (3)
- [ ] World or global agriculture (4)
- [ ] Agricultural technologies (5)
- [ ] Food production systems (6)
- [ ] Farm management (7)
- [ ] Farm economics (8)
- [ ] Agriculture and Society (9)
- [ ] Agriculture and the environment (10)
- [ ] Animal welfare (11)
- [ ] Biofuels and agriculture (12)
- [ ] Food Waste (13)
- [ ] Human health and agriculture (14)
- [ ] Other (15) _____

Page Break

Q14 Do you incorporate farm/agriculture activities into the homeschool curriculum?

- ○ Yes (1)
- ○ No (2)

Page Break

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Display This Question:

If Q13 = 1

Q15 What farm/agriculture activities do you incorporate into the homeschool curriculum?

_____

Page Break

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Display This Question:

If Q8 = 2

And Q13 = 1

X→

Q16 Since you are not living on a farm, how do you incorporate farm activities into the homeschool curriculum?

- ☐ Child(ren) go to a neighbor's farm (1)
- ☐ Child(ren) go to a university or other institution's farm (2)
- ☐ We go on field trips to farms (3)
- ☐ Other (4) _____

Page Break

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Display This Question:

If Q11 = 2

Q17 What is the likelihood that you would use a formal agriculture or agriculture science curriculum in the homeschool program if you could get one?

- Extremely likely (1)
- Somewhat likely (2)
- Neither likely nor unlikely (3)
- Somewhat unlikely (4)
- Extremely unlikely (5)

Page Break

Display This Question:

If Q11 = 1

X→

Q18 Please indicate the extent to which you feel satisfied with the agriculture curriculum currently used.

- ○ Extremely satisfied (1)
- ○ Somewhat satisfied (2)
- ○ Neither satisfied nor dissatisfied (3)
- ○ Somewhat dissatisfied (4)
- ○ Extremely dissatisfied (5)

Skip To: Q19 If Q17 = 1
Skip To: Q18 If Q17 = 2
Skip To: Q18 If Q17 = 3

Page Break

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Display This Question:

If Q17 = 4

And Q17 = 5

Q19 You indicated that you are not satisfied with the agriculture curriculum currently used. Please describe the main content you consider absent from the agriculture curriculum.

_____

Page Break

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Display This Question:

If Q11 = 1

X→

Q20 To what extent do you feel competent teaching the agriculture or agricultural science curriculum currently used?

- ○ Extremely competent (1)
- ○ Somewhat competent (2)
- ○ Neither competent nor incompetent (3)
- ○ Somewhat competent (4)
- ○ Extremely competent (5)

Page Break

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Display This Question:

If Q9 = 2

X→

Q21 To what extent do you feel competent teaching an agriculture or agricultural science curriculum if there was access to one?

- ○ Extremely competent (1)
- ○ Somewhat competent (2)
- ○ Neither competent nor incompetent (3)
- ○ Somewhat incompetent (4)
- ○ Extremely incompetent (5)

Page Break

Q22 How likely are you to participate in professional development courses to improve teaching agriculture or agricultural science curriculum in a homeschool program?

- Extremely likely (1)
- Somewhat likely (2)
- Neither likely nor unlikely (3)
- Somewhat unlikely (4)
- Extremely unlikely (5)

Page Break

Q23 Please rank your preference for the following instruction methods for professional enhancement courses. 1 is most-preferred and 3 is least-preferred. Drag and drop responses in rank order.

_____ In a classroom (physical) (1)
_____ Recorded lessons available at your convenience (internet-based asynchronous) (2)
_____ Live webinars (internet-based synchronous) (3)

Page Break

Q24 Do you use online resources to support the homeschool program?

- ○ Yes (1)
- ○ No (2)

Page Break

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Display This Question:

If Q23 = 2

Q25 Why do you not feel the need for online resources to support the homeschool program?

_____

Page Break

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MS AGRICULTURAL AND FORESTRY EXPERIMENT STATION
DIVISION OF AGRICULTURE, FORESTRY AND VETERINARY MEDICINE

Display This Question:

If Q23 = 1

Q26 Which of the following online services do you use in the homeschool program?

- [ ] Lesson plans (1)
- [ ] Assessment (2)
- [ ] Course content (3)
- [ ] Activities and projects (4)
- [ ] Learning games (5)
- [ ] Other (6) _____

Page Break

Q27 Have you used online instructors to help you complete some of your courses?

- ○ Yes (1)
- ○ No (2)

Page Break

Q28 Which of these would describe your gender?

- Male (1)
- Female (2)
- Other (3) _____
- Prefer not to answer (4)

Page Break

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Q29 What is your marital status?

- Never married (1)
- Married (2)
- Cohabiting (3)
- Widowed (4)
- Divorced or seperated (5)

Page Break

Q30 What county do you reside in?

_____

Page Break

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Q31 What is your highest level of education?

- ○ Less than high school (1)
- ○ High school graduation (2)
- ○ Vocational, Technical, associate degree or some college (3)
- ○ Bachelor's degree or some graduate school (4)
- ○ Graduate school or Professional degree (5)

Page Break

Q32 What is your ethnicity?

- American Indian (1)
- Asian (2)
- African American (3)
- Hispanic or Latino (4)
- Native Hawaiian (5)
- White (6)

Page Break

Q33 What is your perceived importance of including agriculture in homeschool?

- ○ It is important for students to learn about food and fiber systems (1)
- ○ I do not think it is necessary (2)
- ○ I do not think it is necessary nor not necessary (3)
- ○ Other (4) _____

Page Break

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Q34 If you would like to be entered to win a gift card for your participation in this survey please include your email address in the box below.

_____

End of Block:

APPENDIX C

FIRST EMAIL SENT TO PARENTS

Good morning,

My name is Allyson Moore, I am a Graduate Research Assistant at Mississippi State University.

Currently, I am collecting data for my master's interested in making connections within agriculture curriculum. As a team, we are focused on describing homeschool parents' perceptions of agriculture and agriculture education. Being able to measure homeschool parents' knowledge of agriculture curriculum and implementation. As well as identifying where support is needed in order to promote homeschool parents adopting agriculture into the existing curriculum.

Our goal is to be able to bring agriculture to as many students as possible. In doing this research it will provide a better understanding if there are any needs from parents to help incorporate agriculture education into the existing homeschool curriculum. We would love for the following message and survey link to be shared and taken amongst members of your organization. We greatly appreciate your help.

Thank you.

Hello,

We are currently conducting a study to determine homeschool parent perceptions in regard to agriculture, agriculture education, and willingness to adopt agriculture education into homeschool curriculum. The study consists of a 35-question questionnaire for homeschool parents in Mississippi.

If you wish to participate in this survey, you will have the opportunity to be entered into a drawing for a $25 Amazon gift card! There are two chances to win one of two gift cards that are available. However, if you have already participated in the survey, thank you! Please disregard this email.

Should you choose to participate, your answers will remain confidential, and the questionnaire should take no longer than ten to fifteen minutes to complete. As researchers, we do not foresee any risks to our participants however, your participation is completely voluntary, and you may discontinue your participation at any time.

We appreciate your participation, please follow this link to complete this short survey: https://msudafvm.co1.qualtrics.com/jfe/form/SV_eydOdkewZOFBfMi

APPENDIX D

SECOND EMAIL SENT TO PARENTS

Good morning,

My name is Allyson Moore, and I am a graduate research assistant within the School of Human Sciences at Mississippi State University. I am currently in the process of completing my thesis titled: Are homeschool parents willing to incorporate agriculture into their child's education? Parents perceptions of agriculture and desire to teach their child agriculture education. I contacted you last week about this research opportunity in hopes that you would forward this opportunity to all of the parents within your organization.

The purpose of this research is to identify parents' perceptions regarding the integration of agricultural topics and activities into their child's education as well as their perceptions of agriculture in general. Our hope is that at the conclusion of this research, the current state of integrating agricultural topics into core subject areas in homeschool education is better defined, and we have identified some areas we can help parents and homeschool directors incorporate agricultural topics into their education plan.

This study is IRB Exempt (IRB-23-166). There is no risk in participating in this survey, and parents who participate will be entered to win one of two $25 Amazon gift cards.

Survey link: https://msudafvm.co1.qualtrics.com/jfe/form/SV_eydOdkewZOFBfMi

If you have any questions or concerns, please feel free to contact me via email:akm564@msstat.edu or contact my thesis advisor, Dr. Carley Morrison, via email: cpc215@msstate.edu.

Thank you,

Allyson Moore

APPENDIX E

THIRD EMAIL SENT TO PARENTS

Good morning,

My name is Allyson Moore, and I am a graduate research assistant within the School of Human Science at Mississippi State University. I am currently in the process of completing my thesis titled: Are homeschool parents willing to incorporate agriculture into their child's education? Parents perceptions of agriculture and desire to teach their child's education. I contacted you last week and earlier this week about this research opportunity in hopes that you would forward this opportunity to all of the parents within your organization.

Th purpose of this research is to identify parents' perceptions regarding the integration of agricultural topics and activities into their child's education as well as their perceptions of agriculture in general. Our hope is that at the conclusion of this research, the current state of integrating agricultural topics into core subject areas in homeschool education is better defined, and we have identified some areas we can help parents and homeschool directors incorporate agricultural topics into their education plan.

This study is IRB Exempt (IRB-23-166). There is no risk in participating in this survey, and parents who participate will be entered to win one of two $25 Amazon gift cards.

I have attached a link below to a Qualtrics survey. I would greatly appreciate your cooperation in distributing this survey to all parents within your organization. I have started to receive responses, but I would greatly appreciate it if you could forward this email to your parents again.

Survey link: https://msudafvm.co1.qualtrics.com/jfe/form/SV_eydOdkewZOFBfMi

If you have any questions or concerns, please feel free to contact me via email:akm564@msstat.edu or contact my thesis advisor, Dr. Carley Morrison, via email: cpc215@msstate.edu.

Thank you,
Allyson Moore