

# Acequia and Land Grant Education Project (ALGE) Teacher's Mini Institute

## Building a Land Grant-Acequia Curriculum Evaluation Report



Diana Torres-Velásquez, Ph.D.  
 Georgia Roybal  
 on behalf of the  
 Center for the Education and  
 Study of Diverse Populations at  
 New Mexico Highlands  
 University  
 April 23 and May 7, 2022

**Contents****Executive Summary****Acknowledgements****Introduction****Section 1 - Findings**

April 23, 2022

May 7, 2022

Themes

**References****Resources**

ALGE White Paper: Reclaiming Our Past, Sustaining Our Future: Envisioning a New Mexico

Land Grant and Acequia Curriculum

New Mexico Social Studies Standards - Feb. 2022

Acequia and Land Grant Education Project – presentation slides

New Mexico Land Grant History – presentation slides

What Came Prior to Prior Appropriation – Acequia history slides

Glossary of Land Grant and Acequia Terms

**Addendum A:** Lesson Plan Template and Drafts

**Addendum B:** Chart Paper Group Notes

**Section 2 - ALGE Report Assessment and Review**

**Section 3 - Developing Acequia and Land Grant Curricula: Job Aid and Guidance Doc**

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Building a Land Grant-Acequia Curriculum

Evaluation Report

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La Mesa Prieta Acequia  
(Photo courtesy of UNM Land Grant Studies Program)

## Executive Summary

### 2022 ALGE Teacher’s Mini Institute: Building a Land Grant-Acequia Curriculum

*If querencia is anything, it is respect for vecinos, love for the sacred earth, knowing that el agua es vida. Querencia love permeates our history. (Anaya, 2020, p. xvii)*

The Acequia and Land Grant Education Project (ALGE) Teacher’s Mini Institute was held across two days on Saturday April 23, 2022, from 8:30 AM-1:00 PM and Saturday May 7, 2022, from 8:30 AM-5:30 PM. The institute was held across 2 weekends because of availability of participants and due to COVID concerns. Participants varied because of availability, but we were able to maintain a corps of participants across the 1.5 days. From conception to planning, this was considered a single institute. The ALGE Project was designed to bring educators, community leaders, and other key stakeholders together. Project beliefs and goals had been discussed at virtual convenings held in the spring of 2021. This institute was designed to further the project goals, including to build lessons and to “provide recommendations to the Public Education Department and Higher Education Department on how to reshape New Mexico’s educational system to include a culturally relevant curriculum that embraces the topic of acequias and land grants” (Valdez, 2021, p. 5).

Mini Institute organizers included faculty and staff from the Center for the Study of Diverse Populations (CESDP) at New Mexico Highlands University, the Land Grant Studies Program (LGSP) at the University of New Mexico (UNM), and the New Mexico Acequia Association (NMAA). Participants included land grant and acequia activists with expertise on land grants and acequias, including heirs, non-heirs, parciantes, those who do not hold water rights, acequeros teachers, and administrators in the organizations’ networks who were interested in developing lessons and

curriculum on land grants and acequias. The questions addressed in the Evaluation of this Teacher’s Mini Institute include:

1. What were the successes and challenges of the ALGE Institute?
2. How did organizers of the ALGE Teacher’s Mini Institute build upon prior planning, discussions, and theoretical frameworks?
3. How did participants benefit from the Mini Institute?

Outcomes included an Institute with sessions held across two days that were two weeks apart. Outputs included a visual representation of the land grant and acequia curriculum created by a participant, 13 lesson plans, group notes from two groups for three breakout sessions, video recordings of the activities of the institute across both days of the institute, and recordings of group work sessions where participants created land grant and acequia lessons. Processes included presentations from experts on land grant and acequia content, time for discussion in breakout groups, and development of lesson plans in those same groups. The following are recommendations for next steps:

1. **Complete Lesson Plans:** Participants could use additional time and a platform to complete their lessons using the Five-Step Lesson Plan template provided at the institute, or another workable lesson plan template provided by the participant.
2. **Pilot the Lessons:** Once completed, it would be helpful to pilot the lessons with participants of the ALGE Teacher’s Mini Institute. Lessons could be further piloted in the greater land grant and acequia communities.
3. **Disseminate and model the use of ALGE Institute lessons** in schools near or in land grant and acequia communities.
4. **Continue Collaborations:** All organizations and participants brought their own history and expertise. All were eager for continued opportunities for further collaborations to complete lessons begun at the institute, and to provide suggestions to reshape New Mexico’s educational system. This project benefits from the spirit of mutualismo exemplified by all participants. It will be important to continue honoring the established expertise of the groups involved.

**Mutualismo** means having equitable status and mutual respect between partners. In land grant and acequia organizations, heirs and parciantes intentionally take turns in leadership and followership, indicating a communal nature where commitments and actions are for the benefit of the entire community.

5. **Include students, youth, and young adults** in the process of developing and piloting lessons.
6. **Continue to acknowledge and celebrate the work of the New Mexico Land Grant Council, New Mexico Acequia Association, other organizations and their advocates and activists.** The participants built on the work of multiple generations of land grant activism across many decades. At this institute, we had great cause to celebrate the work of former Lieutenant Governor Roberto Mondragón and Georgia Roybal with their trademark curriculum *Aspectos Culturales*, now archived at UNM Library for all to use. Their work on this curriculum was the foundation for many teachers and students to learn a more accurate history of Nuevomexicanos and Indigenous people in our New Mexico. The legacy of these two community leaders needs to be honored and historicized, along with other activists who have made strong gains on land grant and acequia rights and sovereignty.
7. **Provide suggestions to the Public Education Department (PED) and Higher Education Department (HED) on how to reshape New Mexico's educational system.** After the lessons have been piloted, it would be important for the participants to have the opportunity to debrief and analyze the successes and challenges of the curriculum. It may be that the curriculum takes on aspects of new modes of education reform such as Abolitionist Teaching or Decolonizing Education, paying close attention to the traditional values of our land grant and acequia communities, or it may be that a new mode is created using the curriculum and pedagogy reflective of the historic communities our schools serve. The cultures of this land may influence a mode of teaching about land grants and acequias that is emerging and has yet to be developed. Until then, there were plenty of suggestions that participants wanted to provide to the Public Education Department (PED) and Higher Education Department (HED) on how to reshape New Mexico's educational system.

All participants in all groups suggested it is time for our schools to pay close attention to the traditional values of our land grant and acequia communities. This requires a deep understanding of land grants and acequias, partnered with a strong knowledge and skill base in curriculum development and pedagogy. Some of the participants in two of the groups were inspired by and suggested it was time to decolonize the curriculum and embrace Abolitionist/Liberation Education, using those words. Abolitionist teaching is not a teaching method but a way of seeing the world and proclaiming freedom at all costs, “The ultimate goal of abolitionist teaching is freedom. Freedom to create your reality, where uplifting humanity is at the center of all decisions” (Love, 2019, p.89). It requires “the spirit of an abolitionist...in the fight for equal rights, liberties, and citizenship for dark

children, their families, and their communities—this is fighting for freedom” (p.89). Rather than using checklists, gimmicks, or quick fixes to tweak the system, the goal is to abolish oppression at the root. For example, it involves internal work such as understanding systems of privilege and oppression and having the courage to unlearn the habits that protect those systems.

**Decolonizing Education:** It is important that teachers in New Mexico be aware of the history of colonization of Indigenous and Hispano/Nuevomexicano communities. As the state that passed the first Bilingual & Multicultural Education Act, Indian Education Act, and Hispanic Education Act in the country, we have yet to see the Acts fully implemented and our children benefitting from them. Greyeyes (2022) analyzes the history of Navajo education systems and suggests it is time “to give all tribal nations authority to implement change without relinquishing federal trust responsibilities” (p.14). She uses a definition of decolonization that would involve intelligent resistance to systems that perpetuate subjugation of minds, bodies, and lands. While much of her analysis is on policy, she provides examples and describes what it would take to develop schools that empower children and community members to fulfill their hopes and dreams.



2022 ALGE Teacher's Mini Institute  
(Photo courtesy of UNM Land Grant Studies Program)

2022 ALGE Teacher's Mini Institute:

Building a Land Grant-Acequia Curriculum Project Processes

	Identify Participants	Introduce and Reinforce Content on Zoom (April)	Discussion Breakouts on Zoom (April)	Instruct Participants in Face-to-Face Institute SFCC* (May)	Create Lesson Plans in Breakout sessions at SFCC* (May)
Successes	April Zoom session hosted 17 participants. In-person session at SFCC hosted 23 participants. These were teachers and land grant and acequia specialists who are recognized for their expertise. Overnight stay was provided if requested and meals were catered for in-person session.	Material was provided by the state's experts and included the most recent discoveries and content. Copies of the materials were sent to all participants. Authentic care <sup>1,2</sup> , respect, and collegiality were modeled in every encounter from the first interactions and throughout.	Sessions were recorded for later reference. Breakout sessions were successful in eliciting dialog with participants. The size and structure of the breakout groups allowed for all participants to contribute. Facilitators provided group questions, support, and encouragement.	A professional videographer was hired to tape the full day. Informational presentations were provided by recognized experts. The content presented informed participants on all aspects including: <ul style="list-style-type: none"> <li>•ALGE background</li> <li>•Land grants and Acequias</li> <li>•Social Studies Standards</li> <li>•Martinez &amp; Yazzie lawsuits</li> </ul>	All breakout sessions were video/audio recorded and had an experienced facilitator with expertise on one or more of the following: acequias, land grants, or education. Group discussions were highly engaging, inclusive, and involved every participant in creating lessons. In all groups, participants were highly focused and creative. Each knew their content.
Challenges	Due to the worst fires in NM history, some participants could not attend or could only attend for a period of one or both institute days. All participants were highly aware of the fires. Although the SFCC setting was completely safe, the fires were notable from a distance and affected the lives of all attendees on both days of the institute.	Participants brought varied knowledge and experience in teaching and land grants / acequias. Because some participants could not attend due to fires, organizers did all they could to prepare every participant for the in-person session scheduled in May. This informed the decisions on what vocabulary to use for the second session.	Discussions were honest, caring, and critical. Organizers created a safe space and thus critical questions arose that will need thoughtful consideration. All participants saw the beauty and healing of the content. Some participants expressed that not all knowledge is for all people. Others wished this content might be for all students.	Organizers were careful to provide facilitator backup, given the uncertainty and proximity of the fires. Organizers recognized the challenges of creating this kind of paradigmatic shift, with participants representing grades 1-8. Thus the 5-step lesson plan template used by NMPED* was provided as an option. COVID-19 pandemic regulations still required use of masks at SFCC.	Conversations were so engaging and lively that in the first session, it was hard to hear, when two groups were meeting in the same large classroom. For the remaining breakout sessions, organizers used a separate classroom so that each of the three groups had their own workspace. Discussions led to a wealth of ideas. Although time was used efficiently, groups needed more time to merge their types of expertise into lessons.

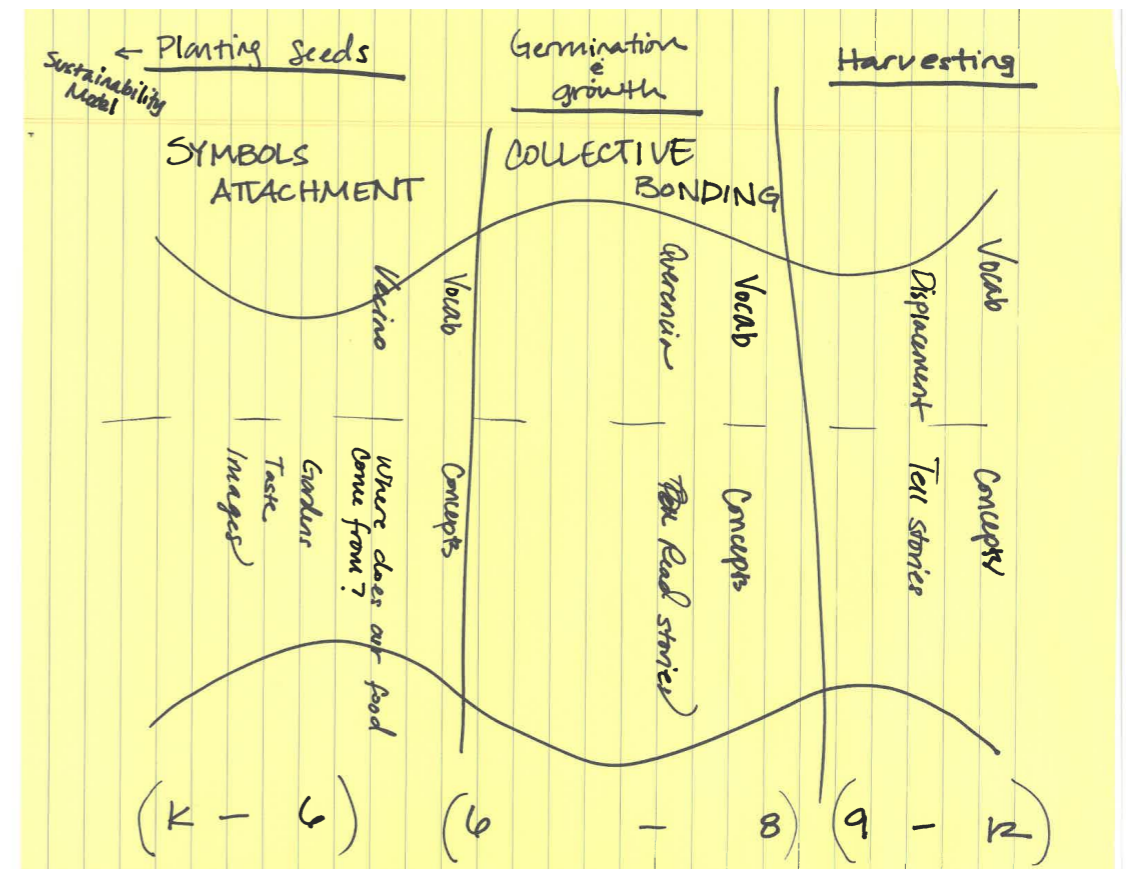
\*Santa Fe Community College (SFCC); New Mexico Public Education Department (NMPED)

<sup>1</sup>Valenzuela (Sleeter, 1999) distinguishes between two theoretical concepts of **care** with U.S.-Mexican American youth, particularly youth experiencing economic racism involving loss of land, labor, and resources where cultural racism exists to legitimate the theft. One critical form of care affirms and embraces the culture and communities of youth while encouraging and sustaining supportive, caring relationships between students, teachers, and their families. The other subtractive form of care devalues and attempts to erase that culture while pushing for academic success with a curriculum that is disconnected from the life of the student (Valenzuela, 1999).

<sup>2</sup>Students in Tucson Unified School District's Mexican American Studies named it the Critically Compassionate Intellectualism (CCI) Model of Transformative Education. The concept of **authentic care** was identified as the top priority. According to students, one element, "Blossoming Intellectualism (Xinachtli) Through Authentic Caring", involves "a stronger critically racial consciousness, ... built upon hope, family, and love... and a sense of cultural intuition... constructed upon appreciation and respect for the Chicana/o community, its culture and its historic struggle for education equality" (Romero & Arce, 2009, p. 193). **Xinachtli** is a Chicano Indigenous term meaning "a process of nurturing the *semillas* (seeds) of knowledge (Romero & Arce, 2009, p. 194).



Figure 1: The Acequia as an Interdisciplinary Tool for Learning (Loretta Trujillo)



As Loretta Trujillo participated in her group's discussions, she had a vision of the flow of an acequia. She designed this acequia in two layers, using components of the Understanding by Design (UbD) Framework (Wiggins & McTighe, 2005). On the top layer, the flow of the river is centered in concepts that carry the themes and the soul of land grant and acequia activism. These are Mutualismo, Healing, and Collectivism. Along the way are meaningful vocabulary words that sustain the themes. These are sharing, vecinos, stewardship, ejido, and equity (all roles matter/each person has equal value). We see a resolana on each side of the acequia where the acequia bends. The flow of the acequia is anchored in community; los parientes, vecinos, and kinfolk; and the many ways we gain knowledge.

In the second layer, the acequia goes deeper into the soil and represents a sustainability model for this curriculum in three phases of teaching vocabulary and concepts. These stages include Planting Seeds (grades PreK-6) where students learn symbols and develop an attachment and understanding of the significance of these lands and acequias. They learn the significance of vecinos and where our food comes from. The second stage, Germination & Growth (grades 6-8), is where students gain a stronger understanding of the collective and of bonding, learning the concept of querencia. In the third stage, Harvesting (grades 9-12), students learn how displacement has happened over several generations and students practice the principles of stewardship. (L. Trujillo, Personal Communication by phone, August 8, 2022)



Manzano Lake  
(Photo courtesy of UNM Land Grant Studies Program)

## Acknowledgements

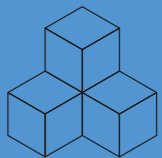
Organizers and participants of the Acequia and Land Grant Education Project (ALGE) Institute recognize in this report and recognized at the Institute that these lands on which we live, work, and stand are Indigenous Lands. A leader of the New Mexico Acequia Association read the organization's land acknowledgement statement to open the Institute.

Everyone here walks, lives, and breathes within these sacred lands of Indigenous peoples. As we begin our activities, let us fully acknowledge where we are and give thanks for living mountains, valleys, and waters. As we express our querencia for Indigenous and ancestral homelands, let us be grounded in awareness of this place and ask our Creator to fill us with gratitude, love, care, and respect for all that is shared between us and all beings. (Adapted from Communities for Clear Water)

We recognize the many individuals and communities across the history of New Mexico whose shoulders we stand on, who valued and worked hard to protect their/our history, culture, language, natural environment, and natural resources. We wish to thank the staff at the Santa Fe Community College (SFCC), the ALGE Mini-Institute participants, land grant and acequia activists, and the land grant and acequia communities across the state. We wish to thank the organizers, especially Adrian Sandoval, Jacobo Baca and Anissa Baca, for modeling mutualismo, compassion, and care, and for providing resource materials and helpful feedback on this evaluation report.



2022 ALGE Teachers' Mini Institute  
(Photo courtesy of UNM Land Grant Studies Program)

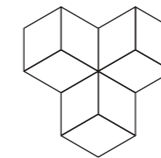


## Collaborators

New Mexico Highlands University (NMHU), Center for the Education and Study of Diverse Populations (CESDP) at New Mexico Highlands University, the Land Grant Studies Program (LGSP) at the University of New Mexico (UNM), and the New Mexico Acequia Association (NMAA) collaborated with state land grant, acequia, and community leaders, activists, teachers, heirs, and non-heirs in planning and implementing the 2022 ALGE Teacher's Mini Institute held on April 23<sup>rd</sup> and May 7<sup>th</sup>, 2022. Collaborators and participants included the following:

- Center for the Education and Study of Diverse Populations (CESDP) at New Mexico Highlands University (NMHU)
- The University of New Mexico Land Grant Studies Program
- New Mexico Acequia Association
- The Center for Positive Practices
- New Mexico Land Grant Council
- Arturo Archuleta, New Mexico Land Grant Council (program advisor)
- Dr. Jacobo Baca, UNM Land Grant Studies Program
- Anissa Baca, UNM Land Grant Studies Program
- Emily Arasim, NM Acequia Association Youth Education
- Venessa Chávez, Tajique and Chililí Land Grant heir and youth educator
- Dr. David García, New Mexico Acequia Association
- Paula García, New Mexico Acequia Association
- Donne Gonzales, New Mexico Acequia Association Youth Education (program advisor)
- Dr. Glenabah Martinez, UNM Associate Professor and Director, Institute for American Indian Education (IAIE)
- Dr. Joseph Martinez, Center for Positive Practices
- Ron Martínez, Ben Luján Public Policy Institute (retired)
- Regis Pecos, Leadership Institute SF Indian School (program advisor)
- Adrián Sandoval, CESDP at NMHU Director
- Georgia Roybal, Land Grant Activist, Aspectos Culturales, Retired Educator
- Roberto Mondragón, fmr. Lt. Gov of New Mexico, Land Grant Activist, Aspectos Culturales
- Dr. Eric Romero, New Mexico Highlands University, Native American/Hispano Cultural Studies
- Dra. Diana Torres-Velásquez, UNM Associate Professor, College of Education
- Joaquín Argüello, LMSW and land grant president

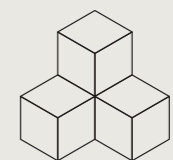
- Juanita Lavadie, activist and retired educator
- Miguel Santistevan, educator and acequia activist
- Travis Mckensie, educator
- Sergio Cáñez, educator
- Loretta Trujillo, educator, and district administrator
- Danny Herrera Brummel, activist, and retired educator
- Andrea Padilla, land grant president and retired educator
- Dawn Salazar, educator, and administrator
- Victoria García, educator and administrator
- Alexa Baca, educator
- Irlanda Hernández, educator
- Gloria Zamora, retired educator
- Froilán Orozco, videographer, and doctoral student in education



**Las Trampas Acequia**  
(Photo courtesy of UNM Land Grant Studies Program)



**2022 ALGE Teacher's Mini Institute**  
(Photo courtesy of UNM Land Grant Studies Program)





Tomé  
(Photo courtesy of UNM Land Grant Studies Program)

## Introduction

- *The most important crop we grow is consciousness.*
- *Might be seeds we are blooming.*
- *It is time to step up in front and do what needs to be done.*

ALGE Participants, May 7, 2022

The Acequia and Land Grant Education Project (ALGE) Teacher's Mini Institute was held across two days on Saturday April 23<sup>rd</sup> from 8:30 AM-1:00 PM and Saturday May 7<sup>th</sup> from 8:30 AM-5:30 PM. Project organizers included faculty and staff from the Center for the Study of Diverse Populations (CESDP) at New Mexico Highlands University (NMHU), the UNM Land Grant Studies Program (LGSP) and the New Mexico Acequia Association (NMAA). According to the authors of the ALGE White Paper, *Reclaiming Our Past, Sustaining Our Future* (2021),

The Acequia and Land Grant Education (ALGE) project is intended to convene educators, community leaders, and other key stakeholders to develop and provide recommendations to the Public Education Department and Higher Education Department on how to reshape New Mexico's educational system to include a culturally relevant curriculum that embraces the topic of acequias and land grants. (p. 5)

Participants of the ALGE Teacher's Mini Institute were community members, land grant and acequia activists, heirs, non-heirs, parciantes, those who do not hold water rights, acequeros with expertise on land grants and acequias, teachers, and administrators in the organizations' networks who were interested in developing lessons and curriculum on land grants and acequias. Recruitment was done through land grant and acequia organization networks and fliers were distributed in university graduate classes. The first session was held via Zoom on April 23, 2022 and was recorded. In the first part of the session, all participants met together with ALGE organizers who presented information on land grants and acequias in New Mexico and in our state's history. Participants then broke out into three groups for discussion on curriculum development with the understanding that the second day of the institute (May 7<sup>th</sup>) would focus on creating lesson plans and learning more about the ALGE historical context, recent changes to the New Mexico Social Studies standards, implications for public education in the state, and implications of the *Martinez* and *Yazzie* lawsuits. Across all planning sessions and institute days, the goal of this project was to create "that communal space where acequia and land grant education can be considered and can be a part of transforming how we educate our youth" (J. Baca, email communication, April 25, 2022). In this report, the process, outputs, and the progress on outcomes of the institute will be summarized. The data in this report includes observation notes from the evaluator, video recordings of the institute, lesson plans created by participants, and breakout room notes on sheets of chart paper.



## Section 1 - Findings

Project outcomes, outputs, and processes used to plan and host the institute will be provided in this section. This institute builds upon the prior work of the project collaborators and their vision for future generations. Participants were experienced teachers, community members, and land grant and acequia experts. Nuevomexicanos were in the middle of the most extensive fires in the history of the state during the dates of the institute. Fires were raging in northern New Mexico during the April 23<sup>rd</sup> and May 7<sup>th</sup> events. Some of the experts and participants who normally would have attended were in situations where they, their homes and/or land were in grave danger, and they could not attend. Some participants missed part or all of the zoom session due to the fires and in some cases their effect on internet access. Some participants were able to attend all or part of the in-person event at Santa Fe Community College while keeping an eye on updates of the fires. This level of participation during this time of crisis indicates the value, priority, and importance of the ALGE work. There is clearly a sense of *querencia* for these lands and a strong desire to protect them. The smoke was visible in parts of Santa Fe during the May 7<sup>th</sup> session but did not interfere with the health or activities of the institute. A couple of participants had to leave mid-day due to the

progress of the fires on their property or neighboring properties. Land grant heirs, and presidents,

acequia *parciantes*, land and water activists, university faculty, elementary and

secondary education teachers, district administrators, and former

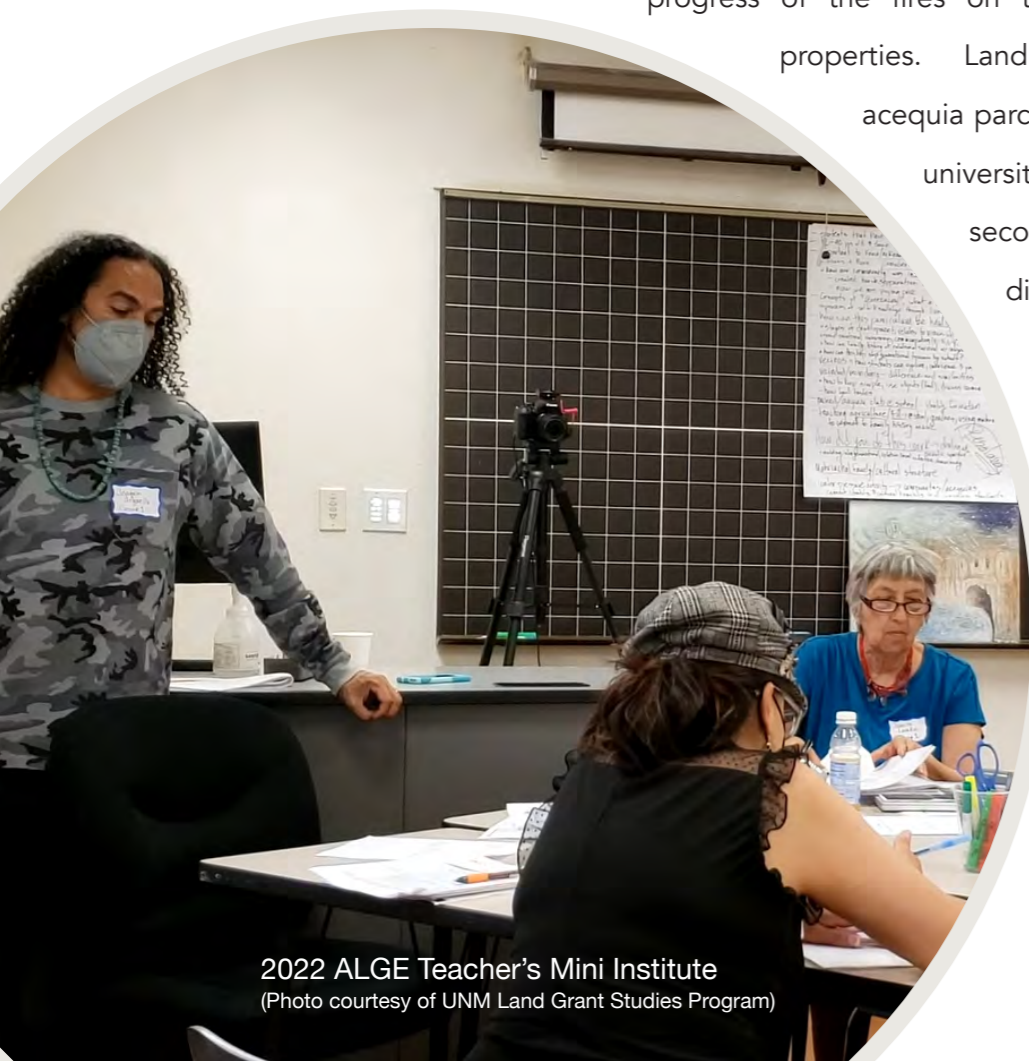
state elected officials, including former Lieutenant Governor

Roberto Mondragón, attended the institute, contributed to discussions,

and were actively engaged in discussions, activities, and lesson planning.

While all participants had been introduced to the

While all participants had been introduced to the



2022 ALGE Teacher's Mini Institute  
(Photo courtesy of UNM Land Grant Studies Program)

ALGE White Paper: *Reclaiming Our Past, Sustaining Our Future: Envisioning a New Mexico Land Grant and Acequia Curriculum*, and many had attended last year's convenings, the contents and history were new to a couple of the teachers. Using an approach that honors cultural wealth and given the reality of 13.5 total contact hours with participants, the organizers decided early on that it was important to present the land grant and acequia content in the April session that would be incorporated into lesson plans to review and build on the knowledge and expertise of the participants in the May session. With varying levels of expertise and background in both education, and land grants, and acequias, it was also suggested that a common lesson plan template be used. The lesson plan template in Appendix A was provided by the director of the CESDP at NMHU as a starting point for designing lessons. This 5-step lesson plan template used across New Mexico, is one that most teachers are familiar with and have used in their planning and teaching. It uses the Direct Instruction Model of Teaching (also known as the 5-step lesson plan) with aspects of Understanding by Design (Wiggins & McTighe, 2005) incorporated into the template. The template was provided as an option and groups were encouraged to use what worked best for them. All groups chose to use this template to guide them and to create, but only two groups wrote on the 8.5x11 lesson plan templates provided on paper. Group 1 submitted a couple of lessons on the paper template. Group 2 used the template for guidance in the discussions and transferred section labels and their group lesson plans to the chart paper. Their charts were a combination of the lesson plan template and their discussions. Group 3 didn't use charts but took notes and then used the lesson plan templates to capture some ideas that came up in the discussions on planning lessons.

As the next step for the ALGE Project, the 2022 ALGE Teacher's Mini Institute: Building a Land Grant-Acequia Curriculum built upon prior planning, discussions, and theoretical frameworks. Several of the Teacher Institute participants had participated in last year's convenings where they provided input for the ALGE White Paper. The participants of the 2022 institute entered the project with a wide range of knowledge and experience with social justice and critical theory vocabulary and concepts, such as those found in the works of Paulo Freire, bell hooks, Tara Yosso, Daniel Solórzano, Dolores Delgado Bernal, etc. Presenters and group facilitators focused on developing lesson plans with the knowledge brought by community members, rather than expecting an understanding or use of terms and concepts such as "decolonial frameworks" or other terminology. Concepts and vocabulary emerged naturally during the workshop and breakout sessions that clearly supported the vision, values, beliefs, and the following Project Belief Statements from the ALGE White Paper: *Reclaiming Our Past, Sustaining Our Future: Envisioning a New Mexico Land Grant and Acequia Curriculum*:

- We believe the ALGE Project serves our communities and future generations by honoring the truths of our past while nurturing a legacy of land and water justice, food sovereignty, and cultural integrity.
- We believe that our educational framework in New Mexico, including how we contextualize land grants and acequias, should be grounded in Indigenous perspectives on history, land and water tenure, and community as well as critical consciousness on colonialism.
- We believe that a transformation of our education system is needed to serve our communities by preparing students to be active change agents in our communities in the areas of land, water, and food.
- We believe that an ALGE curriculum will strengthen cultural identity, elevate public consciousness, and lead to public policy that is inclusive of the voices and knowledge of New Mexico’s traditional, land-based communities. (p. 5)

This evaluation report provides a summary of the discussions held across the two days of the Institute and analysis for the purpose of identifying successes, challenges, and next steps. A section of the ALGE White Paper is devoted to Decolonial Frameworks and Future Possibilities. A wide range of tools and goals exist to decolonize education. To decolonize education is to resist systems of oppression. For example, in this case it could include teaching the culture, language and history of our land grant and acequia communities in ways that value our ways of knowing and that critically analyze the systems of oppression we aim to resist. Decolonizing education also means analyzing educational policies and systems to determine who has the authority to approve a teacher’s curriculum and pedagogy (Greyeyes, 2022). A teacher may create engaging and empowering lesson plans, but if any level of authority does not allow the teaching of the language, culture, or history, that effort may be restricted (as in the Raza Studies in Tucson Arizona).

The Project Belief Statements from the ALGE White Paper require a curriculum framework that affirms our student’s critical consciousness and sense of agency. Two modes of education reform that arose in discussions from some of the ALGE Teacher’s Mini Institute participants were “Decolonizing Education” and “Abolitionist Teaching”. Neither is a model, but rather both center on recognizing the assets, hopes and dreams of students, families, and community members and on disentangling power systems that devalue those students, their dreams and hopes. The ALGE Teacher’s Mini Institute moved the work of developing a framework forward that will support our students, families, and communities. The organizers intentionally did not set out to create a Decolonizing Curriculum or Abolitionist Teaching. The intent was to start at the level of the teacher and the group.

### **Saturday, April 23, 2022, via Zoom**

Day One of the 2022 ALGE Teacher’s Mini Institute provided the opportunity for teachers and all participants to share and learn about land grants and acequias. With many levels of understanding, it was an important day for participants to get on the same page in preparation for the May session where they would design lessons. While the organizers had initially planned to bring middle school teachers to the project, there were also elementary school and high school teachers who were interested in attending. This first day also provided the opportunity for participants to get to know each other. Participants were assigned to one of three groups, which remained the same for both days of the Institute with Day One in April and Day Two in May. The points below represent the overall successes, challenges, and next steps.

- Outcomes – What was achieved? / What are intended outcomes that haven’t been achieved?
  - Group members had a chance to get to know each other and their facilitator.
  - Group members got to learn about land grants and acequias from presenters and from each other.
- Outputs – What was delivered or will be delivered? When and to whom?
  - Facilitators took notes and groups were video/audio recorded. Within 7 days, the video links of the recordings were provided to all participants, including members who could not attend the first session.
- Processes – What worked well and what needs to change?
  - Discussions ran smoothly; participants expressed the recognition of the critical nature and importance of the content; there were opportunities to hold critical discussions of the persisting fires and to check in on each other’s well-being.
  - Facilitators provided space and equitable opportunities for each participant to engage in the discussions; the institute was hosted on Zoom using breakout rooms for working group meetings. It helped that the facilitator took notes and shared the screen for all to see as they were being written, and that the sessions were recorded.

Evidence of alignment to the ALGE Project Belief Statements was found in the Breakout Session questions from both days of the Institute, in the video and audio recordings of the breakout discussions, observations, personal and group notes from the sessions, and in the recorded debriefing.

1. What were the successes and challenges of the ALGE Institute Day One held in April?

- a. Vital discussions were held in which all members of every group participated. Points made were critical and contributed to group learning about land grants and acequias. Points of discussion around the topic of the fires appeared to contribute to group healing while also informing and building a case for social action and policy change.
  - b. No challenges were noted.
2. How did organizers of the ALGE Teacher’s Mini Institute build upon prior planning, discussions, and theoretical frameworks?
    - a. The organizers were careful to honor the foundational work and Project Belief Statements that were provided in the ALGE White Paper: *Reclaiming Our Past, Sustaining Our Future: Envisioning a New Mexico Land Grant and Acequia Curriculum* by reviewing it with the entire organizing team and referring to it in every planning meeting.
    - b. In the first part of the first day of the Institute, organizers presented the ALGE White Paper to help all participants get on the same page of this project.
  3. How did participants benefit from the Mini Institute?
    - a. Holding the meeting via Zoom allowed all participants to login from their homes. This also allowed for screen sharing of notes as they were being written.
    - b. Group members got to meet each other in some cases for the first time. They began to develop rapport and learned from each other.
    - c. Group members described feeling included in learning about land grants and acequias in New Mexico. They stated that this new knowledge and wisdom gave them pride in their identity and a better understanding of Nuevomexicanos, especially from northern New Mexico.

### Day One Breakout #1

#### Questions: How are land grants and acequias important to our communities, to our elders, to our culture, to our identity?

- How do we make studies of land grants and acequias relevant and interesting to all youth of all backgrounds, including Indigenous and urban students?
- How do we integrate acequias and land grants into social studies curriculum and across all content areas in a way that is inclusive of the current realities and experiences and respectful of the work of our elders?

Below are observations from the evaluator and selected quotes of statements made by participants, as recorded in video or as written into the evaluator’s notes during Breakout Groups.

1. A suggestion was made to develop a document to understand layers of identity. This part of the discussion centered on the importance of helping students maintain a healthy balance of mental health in their own context and reality. The importance of teachers to be able to nurture their own identity and healthy balance of mental health was acknowledged and reinforced. This discussion included established celebrations in our communities. Participants suggested that we need to reexamine and reimagine traditions such as the fiestas.
2. Participants recognized the great wisdom offered by our elders and council members in learning about our history, social studies, STEM, and other fields. Throughout the work of the groups, the point was made that our land is tied to every content area including science, technology, mathematics, language arts, and fine arts, and that it is situated in many types of learning.
3. “We have to somehow go back and show the history of how we ran our land grants. The kinds of positive things that we did. If you look right now, we’re having wildfires all over New Mexico. When the land grants were running those lands, we didn’t have wildfires. Why? Because we maintained the grazing and kept the grasses down. We went in and took all the downed wood; we protected the areas. We treated it right and made sure those things didn’t get out of control. And the minute, especially in the Northern part of the state, where everyone lost their land, it went crazy. I’m sorry, but the forest service is not maintaining those lands. How would it be if the land grants were taking care of those lands? Can we try a way that worked to manage those lands?”
4. “Native Americans were practicing burns, but as a management tool. Back in the day, forest was of integrity. We were using fire as a management tool. It is a thing of ecological control that has gotten out of control. The fire danger we’re experiencing now is the direct result of bad forest management, and the acequias and the land grant and Native Americans have a management practice that is diametrically opposed to what we’re seeing now.”
5. “Knowledge is power. Our students need to know who they are and their identities. I am just now learning about this as a teacher. I am connecting myself to this because as a Mexican American from Mexico I didn’t feel connected to school. I was just learning about the Anglo ways and the American culture but not about the Native American culture or the land and history of the land. It’s a lot of learning for me and as a teacher of elementary primary grades, I think my students need some help learning about their identities and about their culture. I want to incorporate literature into everything and in teaching 2nd grade, they’re barely

learning how to read and write, especially now with the pandemic. There’s a lot of ways to bring identity, culture, and history. Just as a way of storytelling would be one way of bringing the **truth** to our students. Teaching them about their culture their families their identities I see that there was a lack of a lot of that when I was growing up. I’m taking all this in and I’m thinking about how you know it could be incorporated in my teaching. Learning about this is very recent.” (edited for length)

### Day One Breakout #2

#### Questions: How do the cultural values of dominant US culture challenge or limit the commons of the acequia and land grant communities?

- How does the curriculum we are developing complement / build off the *Martinez* and *Yazzie* lawsuits and other efforts for culturally relevant curriculum?
- How do we bring acequias and land grants into the classroom without losing the heart, spirit, and culture that is felt on the land/in action?

Observational notes and points made by participants during discussions recorded from Breakout 2 -

1. Participants felt that we must resist the dominant society point of view that creates a linear curriculum for our students. They expressed that schools trample over our values and structures, that education is a political act, and that we must resist this form of education.
2. Participants stated that our students need to learn and retain basic land grant knowledge and skills, including how to dig ditches. Examples were given of youth who don’t know how to use a shovel or clean an acequia. They expressed that our children need to learn this knowledge and these skills as part of learning about their identities and as part of learning how to sustain these lands.
3. Our commons need to be honored and understood for how they contribute to the good of the community.
4. “As teachers and community leaders, it is time to embrace a curriculum of Critical Love and Abolitionist Education. You can’t rebuild, redo, and reimagine. We must push a curriculum and education of Liberation and Love in Collaboration with Community.” (See Item 6 of the Executive Summary Recommendations for a description of Abolitionist Teaching)
5. Our families use multiple languages and are translanguaging.

### Saturday 5/7/22 Santa Fe Community College

The second session was held in person (with masks required) at Santa Fe Community College on May 7<sup>th</sup>. 2022. Healthy New Mexico foods, coffee, and tea were catered for breakfast and lunch. A professional videographer was hired to record the day’s activities. During the breakout

sessions, three videographers recorded the discussions and collaborative work sessions for each of the three groups. The project provided stipends for lodging in Santa Fe for interested participants so that they would arrive safely, feel rested, and be ready to engage.

Most of the participants attended all day. Some had extensive fires on their land and received phone calls or text updates periodically until they had to leave. Two participants left at noon. It was noteworthy that discussions on May 7<sup>th</sup> in person were different from the discussions via Zoom two weeks earlier in April. Some participants had not seen each other since before the pandemic began in 2020. Fires were ravaging uncontrollably through northern New Mexico and had increased in size and damage to historic proportions. In the full group discussion, one of the participants noted the milkweed that was already growing from the ashes and expressed, “Out of the ashes is the Hope”.

Active and enduring critical and authentic care was expressed and appreciated by all. Discussions in this setting were interactive, engaging and animated in ways that were not possible via Zoom. Presentations were well-received. The excitement around creating lesson plans was palpable. In-depth discussions addressing the breakout session questions were captured on video, highlighted in notes on charts, and reflected in lesson plans. These were all submitted to the organizers at the end of the day. After lunch, the group experienced a *resolana* and music composed and sung by former Lieutenant Governor Roberto Mondragón.

To demonstrate the need for this curriculum, a middle school social studies teacher brought their current textbook used at their school and district. The text in the book had content on land grants and acequias, but it was minimal (about 3 pages total). The writing had very little instructional content. While the text included much more than what is normally provided in a typical textbook and it was accurate, it contained very few land grant and acequia vocabulary words or concepts and didn’t mention names of historical locations, people, or events. This reinforced the need for a curriculum on land grants and acequias and their history, and further inspired participants to create lessons and supporting materials. Participants continued in the same groups in which they had participated on Day One.

- Outcomes – What was achieved? / What are intended outcomes that haven’t been achieved?
  - Participants learned about land grants, acequias, the ALGE Project, and creating lessons.
  - Participants learned about the organizations that collaborated in planning and implementing the ALGE Teacher’s Mini Institute.
  - Participants learned about the *Martinez* and *Yazzie v. New Mexico* lawsuits.
  - Participants learned about the new Social Studies Standards

- Outputs – What was delivered or will be delivered? When and to whom?
  - Participants held discussions on land grants and acequias.
  - Group facilitators took notes on chart paper and those were submitted to the UNM Land Grant Project. A jpg file was captured for each chart and stored in an electronic folder then shared with all participants.
  - Video was recorded capturing each group’s work sessions. The video files were provided to the UNM Land Grant Project and then distributed to all participants by email.
  - Thirteen individual lesson plans, three group lesson plans and two sketch drawings were submitted, scanned, turned into PDF documents, and stored in an electronic folder. The folder was shared with all participants.
- Processes – What worked well and what needs to change?
  - The first thing an observer would notice in any of the institute activities was the high level of kindness and care in the introductions, in the ways questions were asked with great care, and in the treatment and consideration of each participant during planning, instruction, discussion, work groups, and debriefing.
  - There is strong evidence of alignment to the ALGE Project Belief Statements in the planning notes, in the materials provided to participants, in the Institute’s Breakout Session questions, in the video and audio recordings of the breakout discussions, in the facilitators’ and evaluator’s notes, in group notes from the sessions, and in the recorded debriefing.
  - May’s in-person session carried a feeling of urgency and at the same time celebration for coming together to move this agenda forward.

### Evaluation Questions

1. What were the successes and challenges of the ALGE Institute?
  - a. Participants felt teachers need this knowledge as much as students, in order to understand their students and provide them with a good education that includes supporting the development of a healthy identity.
  - b. Key concepts and themes emerged in the discussions that need to be incorporated into curriculum for our students. Lesson plans were begun; however, more time was needed to complete the lesson plans.
2. How did organizers of the ALGE Teacher’s Mini Institute build upon prior planning, discussions, and theoretical frameworks?

- a. Organizers prepared focus topics and breakout questions for each session to support designing lessons during the scheduled time based on review of the ALGE White Paper.
  - b. At the same time, there was a very conscientious decision about what components to introduce. Historical content was introduced to get everyone on the same page. However, since the group had never convened in person for the purpose of creating lessons, a decision was made to start with the participants’ funds of knowledge, forms of community capital including vocabulary, core beliefs and lesson planning skills, using these as a starting point.
3. How did participants benefit from the Mini Institute?
    - a. Participants felt greatly empowered by the sharing of care, knowledge, and querencia. They recognized that land grant and acequia content has long been missing from a curriculum viewed as oppressive for our Nuevomexicano public-school students. Teachers were eager for more institutes, learning, and creative opportunities.
    - b. Depending on how long the participant had been involved, each participant communicated their joy and personal fulfillment in joining and meeting lifelong activists, or in welcoming these new members to the work of the land grant and acequia community.

### Day Two, Breakout Session #1, Creating Lesson Plans

#### Questions - History of land grants and acequias

- Bridging the rural/urban divide – How do we pass land grant and acequia culture to the next generation that is increasingly urbanized?
- What benefit/harm was inherent in the establishment of land grants and acequias? (gets at Indigenous land loss)
- What factors led to the loss of control of waters that flowed through acequias?
- How has land grant tenure and governance and acequia water management and governance changed over time? What impact did this have on these traditional communities?

Due to the excitement and need for these conversations, the first breakout session began a little later and lasted longer the second and third breakout. Facilitators took notes on chart paper in two of the groups. Those notes can be found in the resources provided with this report. Below are observations from the evaluator and selected quotes of statements made by participants, as recorded in video or as written into the evaluator’s notes during Breakout Groups.

- In each group, participants expressed concern that most of our youth don’t know about land grants. These were the first forms of government in the New World with Indigenous and

Genízaro populations. Groups discussed the important concept of genízaro and cultural cross pollination. **Genízaros** were [detrribalized](#) Native Americans. Through war or payment of ransom, they were taken into [Hispano](#) villages as [indentured servants](#), shepherds, general laborers, etc. Gradually, they were incorporated into Hispano communities, and, in fact, often were the founders of many Hispano communities. (For more information, see González, 2014.)

- To frame the lessons and their audience, participants in all groups wondered where these lessons would be taught. All schools? Schools in land grant communities? Members recognized education as a political act, implying that there is both a need to protect this knowledge and at the same time a need to keep it alive for the students who will benefit most from a curriculum that acknowledges and honors their home language and culture. “We are designing and building the plane while flying it.”
- Groups discussed the importance of recognizing respect of our land grants, intergenerational displacement, and what it means to be a good vecino (neighbor), all in connection to building a sense of community and a sense of mental health. The understanding of displacement led to discussions of the fire and what it will take for communities to heal, “Especially with the fires, how do we acknowledge where people have been displaced?”
  - ▶ An example of the need to teach respect was given of a site near a small town just north of Española that has become popular for young people who come in for a day with their 4-wheel vehicles and do not reside in that town. Most likely, they don’t understand how their entertainment disrupts the tierra (land) and cattle feed, and how this causes loss, grief, and mourning for the community. If visitors come from a large city not knowing about land grants, the challenge would be how to instill a respect for the land and for our communities.
  - ▶ Intergenerational displacement is the loss that members of families express when the family began in a land grant community and either suddenly over the years stopped visiting for key celebrations and milestone events. “It’s a kind of grieving of the attachment of people who have been displaced from their ejidos not appreciating their connections to their homeland”. Youth ask, “What is a merced? (land grant)” One example of displacement was from a participant whose family left when she was very young and now, as an adult, she is working to reestablish treasured connections and land grant knowledge.

- ▶ The group recognized how these examples tie into family and student mental health, and how these must be addressed in order to build a strong community. “There’s a lot of hurt out there and we need to consider how we keep people healthy.” This also connects to the theory of care and the structural and historical perspective of land loss, economic racism, cultural racism, and their effects on mental health.
- With the many land grants across the state, participants thought a lesson could center on how land grants are different and how are they similar.
- “Our language provides a community of words – morada, etc.” “Words have power.” What language/labels has American school system given us? How do schools teach the American values?” Participants viewed education as a political act. They discussed “Who has the power?” and how decolonization counters the colonial mentality.
- Recent history of social and legal action defending Anton Chico land grant, resulting in lawyer acquisition of land as payment was discussed. Anton Chico goes back 300 years.
- Gender inequality was discussed – women lost the right to own property after the Mexican American War. Still today, only landowners can participate in some organizations.
- Querencia was discussed in each group – definitions, examples, comparison to maternal loving.
- The observation that textbooks are outdated and inadequate was made in every group. Participants in at least two groups explained in great detail the importance of starting a unit with mapping and even art – having students draw a map, learning to provide labels, landmarks, rivers, symbols of natural environments, acreage, homes, and marking where students’ families live.
- Participants in all groups discussed food traditions. “When people met there was a blending of food.” “Think about how we could do a Crosswalk.” One group discussed how scholars are replicating historic periods that go back 4000 years to study corn from ancient civilizations in central Mexico. “What does the food that families ate teach us about the families of the past and of the future?” Studying foods provides natural connections to family life, science, mathematics and all the content areas. Students can learn to measure an acre – then to map or visually understand the size of land covered by the 800 acres that had burned in Mora at the time of the second day of the Institute. Deep querencia for ancestral wealth and protection of our lands was expressed. Participants discussed how we can approach this curriculum through place, while being mindful of describing our narrative and history. We

must recognize that Indigenous communities were here long before us and not repeat colonizing story telling.

- Participants reminded the group that pueblos have water systems and that the relationship between pueblos and our communities was through water. Stories told in group discussions included “La Saca” ceremonial practices that focus on our relation to water. “The connection to this content is still with the water.” Participants shared stories that conveyed the importance of water and how sharing the water taught us the awareness of how to be good vecinos (neighbors) in a state like New Mexico. “When you think of acequias and legislative work, a lot of the challenge is about teaching how water is or should be shared. How do big cities even think about being vecinos without thinking about how we all have to work with the same aquifers?”

### **Day Two, Breakout #2, Creating Lesson Plans**

#### **Questions – Traditional uses and learning from our elders**

- How and why do our communities depend on and utilize land grants (including former common lands and acequias?)
- What are the ways in which my elders have contributed to my land grant community?
- What are some of the traditions discussed that I would like to continue?
- What does ejido mean in terms of having access to our public lands? Through this curriculum we are trying to help students find a connection to their land.
- Emphasize community rather than individualism.
- How are collective leadership roles different from mainstream leadership roles?
  - “Relationships begin with our understanding of self and place” came up in all groups. Teachers affirmed the value for what our students bring to the classroom and what is known within their homes. Members discussed how our languages are rich and that students often bring 2 or more languages with roots in even more languages, such as Nahuatl and Arabic. The group lesson moved to how families use land for survival and growing food and then to career readiness. One group suggested having a merced/acequia club at school for identity formation and to connect it with the 4/H club and gardening, learning how to create a school-based business while creating a cycle of support. Groups discussed a project where students learn to garden and grow plants, market, and sell them and then decide what to do with the profits, learning how to give to their school and greater community. Groups suggested learning to do research on related topics both in and outside of the classroom.

- A participant brought up technology as a tool for making the lesson engaging, active, and “live” like a living document. Where teachers are learning technology, students can teach them as young as first grade.
- Groups discussed asset mapping as a tool for cultivating a sense of community. It was suggested that space could be given to identifying conflicts that exist in a community. For example, in a particular county what would be the benefits of selling water rights? This could lead to research on how policy is shaped, legal briefs on the issue, how these contribute to the debate on the issue, and how we maintain a sense of community. Lesson suggestions around mapping that arose in two groups included having students draw maps, with the landscape being parts or systems of the human body. For example, rivers or acequias could be the venas (arteries).
- The arts continued to be seen as a tool for getting to people’s hearts, including music such as the corridos that were shared in the Resolana after lunch that second day of the Institute. This led to a discussion on traditions and how they affect each other (cleaning the ditch, irrigating, cooking food) What makes a tradition? What is cultural protocol? – How do you show cultures and communities in New Mexico? We must be mindful to create a safe space to learn about a culture, so it is not wrong to do so. (referring to story told of sharing Black history in class). Cultivating and practicing traditions is seen as a historical act.
- Another group was deep into a discussion on strategies for this curriculum: graphs, visually representation of concepts, recognizing the complexities of a textbook and book illustrations, learning the process of creating their own books, creating Mock Models of their books, working with the local radio station, end of year celebrations (viewing learning as celebration), demonstration boards, seeking LANL and district resources.

### **Day Two, Breakout #3, Creating Lesson Plans**

#### **Questions – Sustaining our land grants and caring for our communities**

- What are some of the understandings that we have from being from land-based communities?
- What are ejidos (common lands)? How about the acequia term mancomún? How do they reflect communalism and how do we teach this concept to youth?
- How can we continue to care for and maintain land grants and acequias?
- How can we continue to maintain our querencia by caring for the land and continuing our cultural and traditional uses of the land?
  - Groups discussed the nature of traditions, and where and how they are taught. “Traditions begin with family and move outward.” Ideas included families and teachers using the natural

- environment to carry on traditions such as a seed exchange and establishing ground rules that honor and respect different traditions.
- All of the groups continued capturing teaching ideas in the final hours together: video record our elders; conduct an interview project; collect dichos, historical timelines, music, name and interview mentors, create children’s books, develop a geography of childhood.
  - Another group was discussing the norms of community, the roles (such as mayordomo) and how the actions of one could affect all. They brought up what they were seeing during COVID – how different people would go out and get an education and then bring education back home, pointing out gifts and strengths and how this related to character building.
  - The groups discussed the political will it will take for policy change.
  - Multiple groups discussed importance of reinstating the Youth Land Grant Board where they learn to work as a team. “When you give young people authority, they naturally become the next leaders.” Discussions were held of the past when group members were youth and their catalyst moments. These kinds of opportunities could have provided a healthier way to learn to make decisions.
  - In discussion on decolonizing ourselves participants voice, “How do we go through that process without finger pointing or blaming?” This led to discussion of what it is to be a Manito and how that identity has been politicized as “mocho” and leads to being devalued and rejected.

A debrief was held and video recorded at 4:45. These points were stated by participants:

- “A lot of people have dreamed about this day. It’s going to change our state.”
- Teachers stated they were very honored to be here and were thankful for the opportunity. They were grateful to “be in a place like this” and appreciated all the truths that were honored.
- A land grant president stated, “It is time to step up in front and do what needs to be done.”
- Teachers noted, “Our youth are so hungry for this kind of curriculum!”
- Activists noted that with this curriculum, we are symbolizing our historical loss.
- Another land grant president stated, “Thank you to our ancestors – you will have knowledge on paper because of this. I have it because I grew up with this knowledge. I came from a humble family. Once I learned about who I was and why, I was strengthened and was a different person. My family and parents were so humble. Thanks to the people who make me humble.”
- Participants were thanked for their knowledge and expertise and for sharing it so freely.

- A participant stated, “They’re young. What’s coming next is amazing.”
- A participant stated, “Educators are changemakers. We (in this room) honor all our elders and ancestors. In this group, we are helping to transform the future for generations to come. We need to keep going forward. Our public education system needs this. It has been a tool of the oppressors. This is something spiritual and magical they can’t take away.”
- A teacher stated to elders, land grant and acequia activists, “You nourished me. I feel this will take me through the next decade of this work.”
- Among the additional comments, these are just a few that stood out:
  - ▶ “As kids learn and share, there’s hope.”
  - ▶ “This isn’t something we can build in one day. We’re going to do this right.”
  - ▶ “All these questions, every piece of this is important.”
  - ▶ “Colonization tries to separate us.”
  - ▶ “We (us in this group, our youth) might be seeds we are blooming.”
  - ▶ “The most important crop we grow is consciousness.”

#### Overall Observations from May 7, 2022

Each facilitator’s expertise (education, mental health, education/land grant activist) and strengths were apparent in how discussions were guided and in the content of the discussions. Discussions were rich with new vocabulary, concepts, and the cultural perspective of land grant activists. A few themes emerged from the discussions that carried across all three groups.

#### Emerging Themes

One theme that emerged in the very first planning meeting and that ran throughout the activities of this project was **Authentic Care** (Please see notes <sup>1</sup> and <sup>2</sup> under Table 1 in the Executive Summary for a better understanding of Authentic Care.) Included in the ways care was evident were the ways it was extended to members who had lost loved ones in the pandemic, or who were losing the battles with fires on their property. It was clearly and mutually demonstrated when participants saw each other after the fires had started or after a period of the pandemic. There were long embraces held when former Lt. Governor Mondragón entered the session and later in the day when he shared his music with the group along with musician Dr. David García.

Closely woven through the theme of authentic care was the concept and experience of community, or **mutualismo** (versus individualismo). This was evident in the ways that organizers shared responsibilities, planning and power. In the lesson plans, the concept emerged in lessons and activities such as Mapping the Community and Respect of Elders. This led to a discussion of



systems, comparing the land to the human body. Also suggested was a discussion of a time when a student did something alone that would have been better realized with community support.

A third theme was **historical truth**. A suggested activity was to video an interview with an elder. An art project illustrating the past and present use of land grants/acequias was suggested. As groups discussed what factors led to land loss and displacement, a suggested activity was students discussing a time when they had lost something and how it affected them.

A major theme throughout all discussions was **querencia**. Teaching about forest thinning and the gathering of fuelwood helped offset wildfire risk. These lessons are relevant and were expressed as a strong need, given the catastrophic wildfires occurring as the ALGE Teacher’s Institute was unfolding. A special emphasis here was instilling in the students their role in maintaining traditions of honoring and caring for our lands. A sub-theme was the connection to knowing how to grow our own food. All groups suggested preparing or creating something from food or materials found on the land grant.

Deep discussions were held on the need to understand the concept of **ejidos, or “commons” lands**, that held a significant role for community use and to the cultural values and cultural behaviors connected to the stewardship principle. Mercedes (land grants) had been awarded as private and communal lands during the Spanish colonial period. ‘Commons’ lands were determined for community usage “not to be divided, owned, or sold for perpetuity. This concept of shared responsibility and stewardship of natural resources reflects both Spanish and indigenous beliefs” (Romero, 2021, p. 170). These cultural behaviors and values aligned with the topography of the land and its populations (Romero, 2021).

Participants discussed the importance of knowing the timeline of seven levels of government structures, policies, and government processes, that have existed throughout the **colonization** of the peoples of New Mexico. Participants recognized that some forms of these government structures are still practiced in New Mexico. This was a passionate point observed in each of the three groups. The point was made, and the levels were named in one group. In the others, the participants all acknowledged the concept when it was brought up, indicating they knew this information well and then described how our schools and curriculum continue to colonize our students and families. Discussions centered on what our students need in their curriculum instead. Participants provided examples of education components that need to change in order to counter the feeling of colonization. Each group echoed the sentiment that “This is usually how history begins, as though colonization were the beginning of all creation” (Smith, Tuck, & Yang, 2019 p. 69).

### Continued Communication and Input

On June 2<sup>nd</sup>, a request was sent to participants of the 2022 ALGE Teachers Mini Institute to complete a questionnaire for additional information on the landscape analysis of the expertise and curriculum materials already available in New Mexico. The Acequia/Land Grant Questionnaire was provided online at the <https://lwe.positivepractices.com/> to request help from community members to conduct an environmental scan throughout the state on educational curricula pertaining to acequias/waterways and community land grants. The outcome of this effort will be a recommendations report on how schools, teachers, and educational organizations can begin putting together a curriculum, instructional strategies and lesson plans for New Mexico students. The report will be included as an addendum to this evaluation. In addition, text was developed by the Institute planners which can be used by teachers in New Mexico schools and homes and can be read by students at the middle school level. This text will include a glossary, bibliography, and pictures.



"Leña" Tajique, New Mexico  
(Photo courtesy of UNM Land Grant Studies Program)

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2022 ALGE Teacher’s Mini Institute  
 Building a Land Grant-Acequia Curriculum  
 Santa Fe Community College  
 6401 Richards Ave, Santa Fe, NM 87508  
 Rooms 410 and 412  
 May 7, 2022  
 8:30am-5:30pm

Breakout Group 1	Breakout Group 2	Breakout Group 3
J. Arguello (facilitator)	A. Sandoval (facilitator)	G. Roybal (facilitator)
Juanita Lavadie	Danny Herrera Brummel	Travis McKensie
Loretta Trujillo	Andrea Padilla	Sergio Canez
Victoria Garcia	Gloria Lovato Zamora	Alexa Baca
Venessa Chavez	Irlanda Hernandez	Eric Romero
Ron Martínez		Roberto Mondragon
		Dawn Salazar
		David García
Froilan Orozco (videographer)	J. Baca (videographer & facilitator backup)	Anissa Baca (videographer and facilitator backup)

**Floaters** D. Torres-Velasquez

Group 1, Breakout Session 1

- Teach from within **Genizaro** reality – lived experience
  - Regional differences: language, history of merced, composition
  - Connect Genizaro reality: to pueblo views, other towns
- Relation to **urban youth** view/life – connect home
  - Trauma of education/school not facilitating identity
- Youth ask, “what is a merced”?
  - See as a quality of life
  - Need a definition --> some have formal “seal”
    - Can explore imagery, symbolism, meanings of each
    - Can focus on merced as form of government
- Can approach **through place**, everyone has a place
  - Mindful of how we describe our narrative/history – decolonize
  - Recognize Indigenous that were here long before us.
  - Pueblos have their own ditches, not repeat colonial storytelling
- If combining these realities can happen, we can do it
- **Relationship** between **pueblo & our community** was through water
  - “la saca”, ceremonial practices – focus on relation to water
  - History of acequia/wetlands/springs (Smith’s/stores) – destroyed (horses’ pasture)
- History of relationships w/ Raza families have been lost
- Relationship still exists in Taos through the acequias

## Group 1, Breakout Session 1

- Protests that have mistaken targets (Wells/Abeyta agreement)
- 50-40 yrs. old & down have less and/history of relationships
- Important to know/acknowledge where **people** have been **displaced**
  - Picuris & Mora comadres ran town as men were gone working
  - How our community was **instilled/Conquistadores** identity
    - Created harsh separation between communities
    - Now we are paying price
- Concepts of “**Querencia**”, what a morada is, acequia
  - Process of self-knowledge through living meaning of words/culture
- How can this curriculum be **healing** at different grade levels?
  - Stages of development, relates to views of self, family, peer group
  - Socio-emotional awareness, communication (K-5, 6-8, 9-12) (√ exit spcd)
  - How can family history of relational survival w/indigenous community/family taught
  - How can this help stop generational trauma by schools?
- Vecinos = how students can explore, overcome 3 yrs. Isolation
 

Vecinidad/vecindario – difference and similarities

  - How to keep simple, use objects (food), discuss women farmers
    - How food tastes
- Merced/acequia **club @ school** – identity formation

vocabulary

- Teaching **agriculture/4-H** → @ school, gardens, using modern music to connect to family history, music

How did you do this work → dialogue  
Socratic seminar

- Modeling, intergenerational, relation based collective democracy

**Matriarchal family/cultural** structure

Water pressure activity → compuestas/acequias

Connect identity & cultural knowledge to all curriculum standards

Resolana

### Group 1, Breakout Session 1

History of economy, war, federal programs:

- Explain population changes, economic stability

How can learning All this history help youth?

- So will not experience what we did – seen/treated as less

Learning how – adobe making – lasts longer than school

- Using cultural traditional lifeskills → as identity formation

Community desire is stronger than the schools limits!

- Parents took kids in trucks/cafeteria raid when buses canceled

Using COVID → to promote, meet needs of self-sustainability

--new kids want to plant garden

- Compare our garden to modern day (organic) prices

(100\_0019) **Group 1, Breakout Session 1**

p. 4?

Instruction

\*Background knowledge

\*Validate the lack of knowledge

**Governance**

Question – Fast form

Of Gov./leadership

In New World

**\*Indigenous**

\*Trauma – Family

-Language

As Terms

Gallery Walk

**Western**

up

### Group 1: Break Out 2

Hook K-6:

Compilation of resources to access 4 urban teachers  
LANL has kits of resources thru grant

**Plant** --object students identify parts, relate to home

--grow seed in classroom Root view planter

--reference guide for teacher → map with vocab/bilingual

--relate to family tree, various family roles

--students define roles so anyone fits "parent", etc.

--grounding → discipline, nurturing,

■ "Hand of stewardship" what do to keep plant/harden healthy

o Guides learning about shared responsibility

o How makes you feel? Safe, protected

o Cycle of support, returning harvest to source

Ant farm/colony → math project, probabilities

Faith Rocks → used as micro business & healing process

**Guided Practices**

**Book Making** → connect to trees

**Gallery Walk** – activity, see what other students are doing

--example of collective learning

**La Cosecha** → bounty, ritualistic, songs, performance, celebration

o **Teatro** – plants acted out story **Group Work / Collective decisions**

o **Book construction** → title – conceptual, Art/imagery/visually expressed

• **Vocabulary:** index (important for research) multi-language

▪ Build, scaffolding → (cultural equivalent?)

list of ideas

o Vocab books – age appropriate

o Go home, ask elder/sibling → research

o **Independent activity:** mock/draft,

→ In context to class project of play/presentation

**Sources Supplement**

- watershed

- artificial boundaries

- venas, artery – river

ditches

- mock models

-sediment, fire, ash

-videos of content

-excepts showing concepts

**Scale Model of**

**Watershed**

-interactive learning

-delta, silt, etc. (vocab)

-journaling process

## Group 1 Break Out 2, p. 2

### Creating Lesson Plans:

#### Traditional Use & Learning from our Elders

Recognize it is democratic process that predates the constitution

7-Generation Government. students need to learn basic civics before understanding this

- How can this be intro to all political structure/democracy
  - Community focus, teamwork (Identify w/in com/family)
  - Can a classroom actively demonstrate:
    - Traditional collective leadership democracy?
    - We have to actively teach awareness of others → /sharing
- recognizing **shared need** vs. individualism (the norm)
- relational importance vs. meritocracy
- Acequia culture → share responsibility = sustainability
  - Vocabulary → **mayordomo** for cultural validity
    - Can replace vocabulary in classrom: line leader, etc.
  - **Common lands – ejido**
  - **Elders/ancianos** → use tree as elder symbol
  - **Sharing/mutualismo**

mutualismo

Nourishment → of plant, of people (water, sun, dirt)

Structure → roots (family), branches (growth)

Ecological relationships interdependent → nature

Humans

Production mutually beneficial → shade, oxygen, stability grounding, peace

## Group 1 / Breakout Session #3

### Creating Lesson Plans

Sustaining our land grant & earning for our communities:

What project can connect school to home/community through learning

- Understandings from land based community? **Communalism**

**School Based Business:** greenhouse – state plants, market sales, Mother's Day

- Civic responsibility: so - next class
- 2ndary outcomes → policy change needed, mechanism to support structural adaptation of school/district → for com needs
  - **Community garden** – developing political will to make change happen

**Youth Land Grant Board:** to explore youth desires over adult ideas

- Authority given cycles back as accountability & independence for adults
- Catalyzing experiences → for inspiration, growth, determinism
  - Turn negative experiences into positive for younger generation

- Strength Based Character Building (motivational intervening)

- To counter generational deculturalization

- (ind) ○ How can **ethnic, cultural, linguistic** pride enhance learning? → can lead to
- (Collective) ○ How can we find **relations** w/in **our/other communities**? ←
- Decolonizing process, so move beyond "othering" find "commonalities"
- When under duress? How can curriculum work in diff. setting (st./teachers)?

**Tree** – grounding

(teachers increasingly come from far away)

Onboarding (HR poc) to address "otherness" of teacher from different com

For "Facilitator" (teacher) to work internally for "awareness" of "self"

To allow to understanding curriculum through **lived experiences**

Therefore teacher **relationally** (shared responsibility) **connecting**

With **content** & therefore **students/community**

**Mock Lesson Plan**

---

### Group 1 / Breakout Session #3

Maintain: **Querencia, merced/acequias,**

**Traditional Values?**

#### Cultural & Traditional maintenance

How conscientization teachers → students about commodification of: land  
water

Help encourage wealth within people/students

- Favorite restaurant: recognize each trade has value, each build entire business
- Each person/role has equal value mutual **ind/collective value**
- Historic laws of operation: laws of Indies, plazuela
  - Institutional functions that harmed community: ind, land, water
  - Process of **literacy of life**: about religion, school, self
  - “!No soy inútil!” “I have to do what I have to do w/ what I got”
 

“Sabemos ser buen pobres” “Si puedes hablar dos idiomas vales por dos”

    - Bilingual seal, but college has no benefit/accommodate them
    - “Puedo defenderme” **value self** – culturally

→ **Learning is ceremony** (inherent depth of knowledge/consciousness \

(not limited to time/space/age)
- In resolana a dicho means various knowledge to each person/situation
- Not fair when external message devalues – evaluate
  - What traditional views can be an assessment?

(4-H)

  - ❖ **La venta** (de ganados) = sale barn → cycle of life
- Math, farm to plate, economics, science, agriculture, industry of family

- Inquiry based, charting process – **Egg Incubator**
  - ▶ Temp, candeling, listened for hatching → emotional → related to love
  - ▶ **Place based** – dams, rivers, tradition places w/ name emphasis
    - Experiential ed
    - Linguists of Span. language

use of **traditional languages/shared**

HR → Q in interview proc.

**Pre-amble** for teachers to learn reality of curriculum

- Teachers need to be better prepared → micro-credentialing

---

(100\_0003) Group 1 / Breakout Session #3 (?)

p.3

Need to address structural issues:

- Teachers with bilingual seal get extra work with inadequate \$
  - Causes teachers to not want to get certified
  - Giving raises across the board causes issues
  - Need additional stipend increase & funding for bilingual Dept
-

Group 1 Lesson Plan A

FOCUS: Identifying self in mental health process

CCSS/NMSS:

ESSENTIAL QUESTION: How can exploring one's cultural identity enhance learning?

How can we find relations with in/other communities?

OBJECTIVES:

- Dichos = value self from a cultural perspective

Scaffolding of knowledge that is not dependent on time and space

constructs of knowledge

INSTRUCTION:

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Think of your favorite NM restaurant

If there wasn't a \_\_\_\_\_

Develop Student-learning Strategies

there wouldn't be a \_\_\_\_\_

Peer Interaction

ABC book: 9-12

GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Develop Student-learning Strategies

Peer Interaction

INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

What traditional values can be used as assessment?

Group 1 Lesson Plan B

CESDP: "Drawing From the Well"

FOCUS:

CCSS/NMSS:

ESSENTIAL QUESTION: What does a living creature need to grow?

OBJECTIVES:

All things are interdependent and interrelated

Relationships (ecological)

Respect of multiple cultures (Indigenous & others)

Land (mother earth) becomes life

What do we need to grow?

Veins

INSTRUCTION:

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Develop Student-learning Strategies

Peer Interaction

Elders

Common Land

Sharing

Tree lesson

Journaling

- Hook: Root-view planter with radishes/carrots

Teacher instructions on how to make one

Teacher Material

Growth System

- How do you identify your family tree?
  - Have class define family roles
- Grounding
- Stewardship – How do you make sure your plant is healthy? (tree/garden)
  - cycle of support, returning harvest to source



**GUIDED PRACTICE**

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)  
 Develop Student-learning Strategies  
 Peer Interaction

Japanese Book-Stitch  
 Assembly Book (Model): Speaking

See Joaquin's notes

**INDEPENDENT PRACTICE**

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Do an 8-page "mockette"

What is a representation of your family?

**ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS**

Book Making

Pageantry / Teatro (plant story acted out)

**Group 2 Breakout Session 1**

**Focus:** History of Land Grants & Acequias

2 mins music \*General Overview

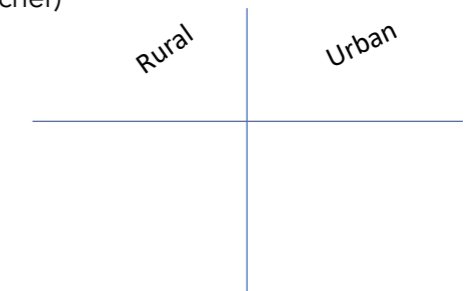
**Instruction:**

Equity /

Word Wall

Indigenous Spanish English Words related to land grants/acequias
---

- 1) Tap into prior knowledge linguistically and conceptually (20 minutes – student-centered)
  - a. Art – pic/words
  - b. Urban/Rural (local pics)
  - c. Maps (local maps)
- 2) Extend on student conversations (5 minutes – Teacher)
- 3) Governance (10 minutes- Teacher)



### Group 2, Breakout Session 1

#### Instruction

\*Background knowledge

\*Validate the lack of knowledge

*Governance*

Question – First forms

Of Gov./leadership

In New World

\*Indigenous

**Western**

up

\*Trauma – Family



-Language =

as Terms

Gallery Walk

### Group 2, Breakout Session 1

#### Guided Practice:

1. # of Land Grants / Map / Read / Small group discussion (4 mins/1 min)
2. What about before? (4 mins/1 min)
3. **Trauma?** Why don't we know? (**Land loss**)

#### Multigenerational

Individual to pairs to large group

#### Independent Practice 10 mins or home: Learning from

- Implications for your leadership in the near future?
- Is this important?

Group 2, Breakout Session 1

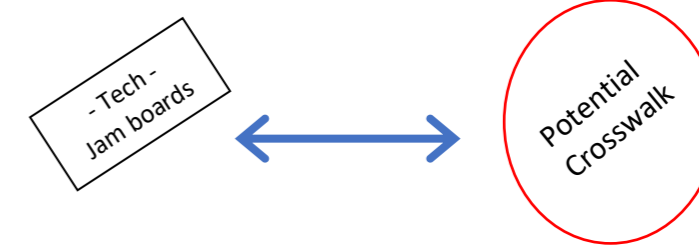
Needs for Success

- 1) Bring in leadership  
Parents/community
- 2) Intro letter
- 3) Compare/Contrast according to timeline
- 4) Know your community and their needs, their realities, strengths.

Group 2 Breakout Session 2

Focus: Traditional uses and learning from our elders

\*music/visuals



Instruction:

(3-5)  
Student

- 1) What vocabulary do you know?
  - a. Indigenous/Spanish/English

Nahuatl    Arabic

\* w/student, lists modern terms student makes w/ community Instruction tease and Community Wealth

Teacher

- 2) Tease out language and cultural groups that have influenced the **traditions**.
- 3) Foods/Land uses

- 8) Growing food
- 9) Raising animals
- 10) Wood education
- 11) Hunting/fishing
- 12) Clean ditches
- 13) Use of gravity
- 14) Computers
- 15) Flood Gates

- 1) Gather Herbs    ] specific days for gathering
  - 2) Gather pinon    ] related to **feast days**.
  - 3) **Remedios**
  - 4) Community support (mutual
  - 5) Bartering
  - 6) Sense of unity/community
  - 7) Alignment with spiritual/and natural calendar
- \***humility**
- 9-16 is from 100\_0013.JPG Group 2 Breakout Session 2 (p. 2)

Oral History  
Project Questions

- 4) Elders
  - a. Do we value our elders as sources of knowledge?
  - b. How do we speak with our elders? How can we improve this?

## Group 2 Breakout Session 2

Please see Item 3 on previous page of this document.

## Group 2 Breakout Session 2

Guided Practice:

- ~~1) Short Video~~
- ~~2) Biography of Elders??~~
- ~~3) Elder Visit~~



- 1) Come up with interview questions?
- 2) What values and ways of being will you employ?
- 3) Practice Interviews → **Peer and Teacher Feedback**

- 1) What values and ways of being will you employ?
- 2) Come up with interview questions
- 3) Practice Interviews → **Peer and Teacher Feedback**

Independent Practice:

- 1) Elder visit and interview (**Zoom**)

\*Make a story of the interview that is what we are looking for.

\*Support with  
Alzheimer's realities

## Group 2 Breakout Session 3

Focus:

Music /  
Visuals

Sustaining our Land Grants and Caring for our  
Communities

Instruction:

- 1) *Nightline* Piece \*

YouTube

Land Grant Council/Forest Service Relationship??

\*Individually write based on video - How do they think they can sustain and care for Land Grants?

Think/Pair Share to large group share

- 2) What is leadership?

Individual / to Pair/ to Large Group

\*Notes  
Question  
Before

## Group 2 Breakout Session 3

### Instruction Cont'd

3) What is followership?

\*Sense community

Leadership involves everyone

\*Recent Event Samples

Land Grants Sharing together

All the things (that)

Help us to sustain (culture and language)

4) What does leadership/followership have to do with sustaining our land grants and caring for our community?

### Guided Practice:

1) Identify groups that support sustained land grants. Where are they?

2) How do we keep our lands?!

Bring back?

3) What role does class & gender play in sustaining land grants?

--Resources such as  
HS FFA, etc.

## Group 2 Breakout Session 3

### Guided Practice Continued:

4) How do we make use of our lands in ways that support current markets?

**Farm to table!**

\*Beyond  
Growing  
food for  
selves.

### 5) Action Plan

a. Triads

b. Sharing of ideas

c. Negotiate/collaborate to identify priority actions.

\*What are our next steps to support and sustain our land grants while caring for our communities?

**Who/What/When?**

One Action Plan that focuses on 2 to 3 items

--Build Consensus

Include Modern tech as  
necessary – our youth teach us  
how to use computers

### Independent Practice:

- How will listening to the history of land grants benefit all communities?  
Support through knowledge **and** experience

And current practices

## Group 3 Lesson Plan A

### FOCUS

#### CCSS/NMSS:

**ESSENTIAL QUESTION:** Emphasize community rather than individual

#### OBJECTIVES:

1. Explain what community-positives, negative
2. Explain individualism – positives, negatives
3. Cultivate a sense of community
4. Look at communities in terms of communities

#### INSTRUCTION

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

#### Develop Student-learning Strategies

##### Peer Interaction

1. Students write their definition of community
2. Students share their definition
3. Visualize the answers
4. Explain individualism
5. Drawing the community as a map
6. Identify groups in the community, conflicts, interventions in the community

#### GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

#### Develop Student-learning Strategies

##### Peer Interaction

1. Readings on issues facing the community
2. Discuss stories from the community
3. Write a legal brief
4. Discuss economics of the community

#### INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

1. Interview the elders
2. 5-minute writing discussing these themes
3. Compare land/water to our body
4. Art project on land/water

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

## Group 3 Lesson Plan B

### FOCUS

#### CCSS/NMSS:

**ESSENTIAL QUESTION:** What are some of the traditions discuss that I would like to continue

#### OBJECTIVES

1. Your family traditions
2. Glossary of terms to understand traditions
3. Awareness of different traditions
4. Traditions change
5. Students to be instigators of traditions

#### INSTRUCTION

1. Write traditions. Draw it.
2. Shared traditions (i.e. Celebrate birthday)
3. Make a new school tradition
4. Plant trees on school board
5. Make traditional foods/arts
6. Seed exchange
7. Youth summit for land grants/acequia

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

#### Develop Student-learning Strategies

##### Peer Interaction

#### GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

#### Develop Student-learning Strategies

##### Peer Interaction

1. Research origins of traditions
2. Listening to music
3. Attend land grant board
4. Videos from traditions in New Mexico

#### INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

## Group 3 Lesson Plan C

### FOCUS

#### CCSS/NMSS:

**ESSENTIAL QUESTION:** How and why do our communities depend on and utilize land grants (including former common lands) and acequias?

#### OBJECTIVES:

1. Show history through maps
2. Show land stewardship during periods of transition
3. Field trip to experience traditional practices
4. Forest Service/BLM taking our land – how it has affected land grants
5. Food production issues
6. Awareness of water rights
7. Understand the difference between public/private

### INSTRUCTION

**Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity**  
**Develop Student-learning Strategies**

#### Peer Interaction

1. Develop a topographical map
2. Bring traditional practitioners (weavers, farmers, etc.) into class to allow students to participate
3. Cultural exchange with other arid areas
4. Elders brought to class

### GUIDED PRACTICE

**Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)**

#### Develop Student-learning Strategies

#### Peer Interaction

1. Write a paper
2. Make videos
3. Interview elders
4. Trading cards
5. Loteria
6. Make trementina
7. Help land grants with their needs
8. Make soap
9. Carve a canoa

### INDEPENDENT PRACTICE

**Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)**

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

## Group 3 Lesson Plan D Breakout 1

### FOCUS

**CCSS/NMSS:** G11.4.20; G14.4.23; EC.21.4.26 (reading/writing standards, too)

**ESSENTIAL QUESTION:** What factors led to the land loss? What have been the causes and impacts of land loss in land grant communities?

#### OBJECTIVES:

Students will be able to:

- o Identify factors that led to land loss in land grant communities.
- o Identify causes & impacts of land loss in land grant communities.

### INSTRUCTION

**Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)**

#### Develop Student-learning Strategies

#### Peer Interaction

Class discussion

Think of a time when you lost something... what were the causes?

What led to it?

What was the impact on you and people around you?

Video on land loss?

Created by...?

Create website

Filled with videos?

Extra resources for curriculum

Lesson on food?

### GUIDED PRACTICE

**Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)**

#### Develop Student-learning Strategies

#### Peer Interaction

\*Presentation & timeline on land grant history & loss.

-include female perspective

Specific details broken into several lessons?

Or more brief overview?

Include maps before & after loss

### INDEPENDENT PRACTICE

**Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)**

-write about what the impacts were, then

Think, pair, share ideas

Class discussion.

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

Assessment: exit ticket? KWL? One pager? On land loss & impacts.

OR – How do these impacts affect land grants today?

Connect to personal life.

\*picture  
 \*sentence explanation  
 \*quote  
 \*vocab?

## Group 3 Lesson Plan E

## First lesson in Curriculum? Breakout 2

FOCUS: Set tone for respecting traditions

CCSS/NMSS: G13.4.11



ESSENTIAL QUESTION: What are some of the traditions discussed that I would like to continue?

## OBJECTIVES:

Students will be able to:

- o Describe what their own family traditions are
- o Articulate traditions that they would like to continue.

## INSTRUCTION

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Develop Student-learning Strategies

## Peer Interaction

\*Hook – What traditions do you have in your own family (quick write)? Choose 1 and draw it.

-expand in discussion – Why do we do these things? How does it affect our relationship w/ land and community?

-investigate traditions that might not be “the norm” for us.

## GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Develop Student-learning Strategies

## Peer Interaction

-Discussion in class about different traditions.

-Set ground rules for respect. Understand everyone has their own experience and that’s OK and welcomed.

## INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

-Interview family & return with traditions parents/grandparents had.

## ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

## Group 3 Lesson Plan F

## Breakout 2

FOCUS:

CCSS/NMSS: EC 20.4.25 125.7.8

ESSENTIAL QUESTION: What are the differences between community vs. individualism? How do we maintain community?

## OBJECTIVES:

Students will be able to:

- o Explain what community means to them
- o Discuss what the differences are between community vs. individualism

## INSTRUCTION

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Develop Student-learning Strategies (5 min)

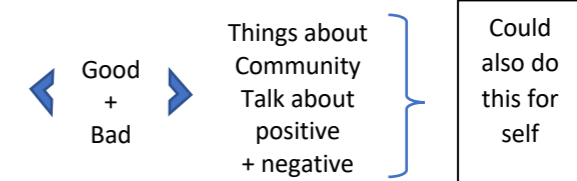
## Peer Interaction

Write on a paper

-What does community mean to you?

-Think, pair, share

-Drawing/mapping out your community.



## GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Develop Student-learning Strategies

## Peer Interaction

\*Web out ideas about community vs. individualism. As a class

## INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

\*Venn Diagram

Community vs. individualism

## ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

-Paper exit ticket

-What does community mean to you?

-When have you participated in a community activity?

-What does individualism mean to you?

-When have you done something by yourself when you could have used the help of a community?

Bigger projects  
such as interviews,  
detailed maps



### Group 3 Lesson Plan G

### Breakout 2

#### FOCUS:

CCSS/NMSS: EC 5.4.15 EC 20.4.25 EC 21.4.26

**ESSENTIAL QUESTION:** How & why do our communities depend on and utilize land grants (include former common lands) and acequias?

#### OBJECTIVES:

Students will be able to:

- Understand the importance of land grants & acequias
- Explain how & why our communities depend on & utilize land grants.

#### INSTRUCTION

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Develop Student-learning Strategies

Peer Interaction

\*Hook → video (elders explaining land grants?)

How did we lose some of the land?

Discussion questions with partner

- What was 1 point that stuck out to you?
- What connections can you make to your life?
- What is one thing you learned about land grants?
- What is one thing you learned about acequias?

#### GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Develop Student-learning Strategies

Peer Interaction

-PowerPoint (slides) on how communities currently use land grants & acequias

Note catcher?

#### INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

-art project or paper that explains past & present use of acequias & land grants

-interview with elder from acequia or land grant community

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

-project or paper on what students believe future use of land grants & acequias could look like with research/resources to support.

### Group 3 Lesson Plan H

### Breakout 2

#### FOCUS:

CCSS/NMSS: G13.4.11 E 5. 4. 14 G14.4.23 EC 20.4.25

**ESSENTIAL QUESTION:** How can we continue to care for & maintain land grants & acequias?

#### OBJECTIVES:

Students will be able to:

- Understand their role in caring for and maintaining acequias and land grants

#### INSTRUCTION:

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Develop Student-learning Strategies

Peer Interaction

- -guest speaker “expert” on land grants.
  - -on zoom if needed.
- Creating web for ideas on what work goes into acequias and land grants.

#### GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Develop Student-learning Strategies

Peer Interaction

-if possible, have students go to a land grant and participate hands on.

-if not, incorporate land grant activities in classroom.

-bring in guest speaker (on zoom if needed).

#### INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

-paper answering EQ

How can we continue to care for acequias & land grants?

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

-reflection project on what was learned at land grant.

### Group 3 Lesson Plan I

### Breakout 2

#### FOCUS:

#### CCSS/NMSS:

**ESSENTIAL QUESTION:** How can we continue to care for & maintain land grants & acequias?

#### OBJECTIVES:

-Why is it important? Removing invasive species from our watersheds, thinning our forest, etc.

#### INSTRUCTION:

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Develop Student-learning Strategies

Peer Interaction

- Why is it important to thin our forest?▶ Use recent fires as an example
- What do these fires do to our watersheds?
- Land grants used to maintain these lands, how did the change in ownership (F.s. ownership) affect this & add to this problem?

#### GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Develop Student-learning Strategies

Peer Interaction

Teaching them the concept of querencia

-planting, community events, etc.

-interdisciplinary approach

-what do land grants & acequias look like in the future

-think locally & globally

-tie this directly into human impact on the environment

How did managing land have a direct impact on the environment?

-use example of bark beetle control and how this helped save part of the forest.

#### INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

### Group 3 Lesson Plan J

### Breakout 2

#### FOCUS:

#### CCSS/NMSS:

**ESSENTIAL QUESTION:** Emphasize Community rather than individualism; How do we maintain community?

#### OBJECTIVES:

Define what community means

Define individualism – identity – who are we as an individual?

#### INSTRUCTION:

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Develop Student-learning Strategies

Peer Interaction

What does community mean to you?

Compare and contrast – how land grant and acequia communities

\*We need to gather reading materials (stories) to represent these ideas

#### GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Develop Student-learning Strategies

Peer Interaction

Venn diagram – structure begin with what

Mind Map – community in the middle then branches

Drawing bodies on butcher paper and say “who we are”.

#### INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Write for 5 minutes about what community means to you? – turn to your neighbor and share your list.

Drawing your community (mapping it)

-talk about what are good and bad things that have come out of your community.

- What traditions are “coming of age” traditions that make us become part of our community?

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

Give them the context of community and individualism and THEN bring in land grants and -or acequia communities

Use these concepts to teach how communities functioned in (word missing)

### Group 3 Lesson Plan K

#### FOCUS:

#### CCSS/NMSS:

**ESSENTIAL QUESTION:** How and why do our communities depend on & utilize land grants and former common lands?

#### OBJECTIVES:

Relate land stewardships to traditions/food in different periods in time.

- How did some of these things change, what stayed the same?

#### INSTRUCTION:

Student Centered / Hook Activate Prior Knowledge and Create Shared Knowledge, Affirm Identity)

Develop Student-learning Strategies

Peer Interaction

- Teaching about different foods that were once grown on former common lands
- Videos – Miguel's video ¡¡Colores!! video

#### GUIDED PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Develop Student-learning Strategies

Peer Interaction

-economics lesson – how much food is grown & kept in New Mexico now?

-Where does water come from? → Start local → your house, your city, state, etc.

#### INDEPENDENT PRACTICE

Incorporating the 4 Domains (Reading, Writing, Speaking, Listening, etc. – list of activity ideas)

Creating youth-made media (ppt, videos, make a book)

- Interviewing an elder
- Who are your mayordomos, comisionados, land grant boards?
- Creating something from a traditional material harvested from the land -

#### ASSESSMENT, REFLECTIONS, ADAPTATIONS, ADJUSTMENTS

### Breakout 2



"Leña" Tajiue, New Mexico  
(Photo courtesy of UNM Land Grant Studies Program)

## Section 2

# Acequia and Land Grant Education (ALGE) Project

*Assessment Report*

*Developed by Vincent Werito, PhD*

*Decolonizing projects are long-term projects that require not only building/developing curriculum but also challenging and changing the paradigm of educators, educational leaders, parents, policy makers, and state/federal leaders. Another challenge might be the acceptance of the ALGE curriculum by political and school leaders who are resistant to changes brought forth from communities of color for their children as well as their efforts to empower their communities, schools, and youth using decolonial frameworks.*

The Acequia and Land Grant Education Project (ALGE) Teacher's Mini Institute was held on April 23 and May 7, 2022. The ALGE Project builds upon previously held virtual meetings in 2021 during which discussions took place about the goals and outcomes of the project. Due to the ongoing concerns about COVID 19 and the massive wildfires in northern New Mexico, the event was held for only two days across two weekends. Throughout this mini-institute, the organizers which included faculty and staff from the Center for the Study of Diverse Populations (CESDP) at New Mexico Highlands University, the Land Grant Studies Program (LGSP) at the University of New Mexico (UNM), and the New Mexico Acequia Association (NMAA), convened key stakeholders to participate in community dialogues to discuss culturally relevant curriculum development and create culturally relevant place-based lessons plans. Also, another objective of the institute was to provide recommendations to the New Mexico Public Education Department and Higher Education Department on providing quality education to all students using the outputs from the ALGE project. The participants included land grant and acequia activists with first-hand knowledge about land grants and acequias, including heirs, non-heirs, parciantes, those who do not hold water rights, acequeros, teachers, and administrators in the organizations' networks who were interested in developing lessons and curriculum for acequias and land grants.

The first session was held on April 23, 2022, to provide participants with information about acequias and land grants in New Mexico as well as related issues around cultural and environmental sustainability. Following the presentations, participants participated in breakout sessions to discuss curriculum development using a decolonial framework informed by Hispana/o and Indigenous perspectives to address the history of acequias and land grants as well as the legacies and remnants of Spanish and American colonization in New Mexico. During the following weekend of May 7, 2022, participants were convened again to create lesson plans and discuss some important implications from their work for the benefit of public education and the Martinez/Yazzie lawsuits in New Mexico.

This is an assessment report of the outcomes from the ALGE Project institute held in April and May 2022. This report is compiled from a review of notes from community dialogues (breakout sessions), lesson plans, an evaluation report, and the author perspectives as a lifelong Indigenous educator. Based on the review of these materials, it is apparent that the activities, processes, and outcomes were aligned with the project's goals and objectives of engaging community participants as well as creating spaces for critical community dialogue with key stakeholders from northern New Mexico. During the institute, organizers, trained facilitator(s), and acequia and land grant education specialists convened educators and community people to engage in critical conversations around

a set of essential questions for discussing culturally relevant curriculum development for creating acequia and land grant educational curriculum using a place-based decolonizing approach specifically for the ALGE roject. In doing so, they were able to develop lesson plans as well as ongoing key partnerships between university/community partners that are essential to sustaining these community efforts in northern New Mexico.

#### **STRENGTHS**

The following is a discussion of the strengths of the lesson plans and/or lesson recommendations created from the May 7<sup>th</sup> institute. The project did what it said it would do in terms of giving attention to and/or affirming the traditional values of acequia and land grant communities. It accomplished its' goals and objectives to convene community members and experts to discuss curriculum and design lesson plans for acequias and land grants education which will provide opportunities for educators across the state to utilize place-based classroom lessons/ activities related to acequias and land grants. In particular, the knowledge from community knowledge holders is key to these efforts of sharing localized critical knowledge that will benefit and inform other communities about the history and importance of acequias and land grants in New Mexico and abroad.

Through the unique approach of centering traditional values and concepts related to 'mutualismo' and other core value concepts, the organizers invited facilitators and community experts to discuss the history of acequias in New Mexico as well as participate in critical community dialogue about the implications of the project with regard to the historical and contemporary educational contexts in New Mexico and abroad. For example, one of the successes of this project was the ability of the organizers to effectively convene participants despite the threat of COVID 19 and massive wildfires ravaging communities in northern New Mexico. More importantly, the organizers were able to invite facilitators and ALGE specialists to engage participants in critical courageous conversations over a short period of time (two days) to create the lesson plans. The process of facilitating critical engaging discussions led to the creation of lesson plans that are informed by community voices and teacher/educator insights. Some other key outputs included a visual representation of the land grant and acequia curriculum created by a participant (Mrs. Trujillo), notes from breakout sessions, video recordings of the activities of the institute across both days of the institute, and recordings of group work sessions that resulted in participants creating land grant and acequia lessons.

Most importantly, the institute provided a space for participants to share their voices and provide key insights about their communities' needs and strengths as well as critical issues that are prevalent to land grant and acequia maintenance/ sustainability. In several of the breakout session, participants discussed important themes that contributed to a deeper understanding of the issues related to land grants and acequias as well as ways in which the curriculum could address issues of historical and intergenerational trauma. For example, the themes of identity and storytelling centered the discussions around the history of northern New Mexico as well as the people and communities going back in history while drawing upon contemporary issues. For example, a decolonized approach to education includes an acknowledgement of colonization as moves towards process of healing. More so, the concepts of identity and storytelling were not only discussed in the sessions but incorporated into the lesson plans to benefit the younger generation by informing their unique cultural identities and histories. The lesson plans propose using different approaches to teach concepts across content areas that are important to presenting knowledge in a holistic perspective. For example, there were discussions about emphasizing a student centered, culture-place-based model informed by critical and Indigenous pedagogies that address cultural and environmental sustainability which are informed by local cultural knowledge and cultural assets/ strengths. In creating lessons in this manner, students see the relevance of what they are learning while also learning about their cultural identity, community history, and the decolonized narratives of who they are as unique communities in Northern New Mexico.

Much of new insights that were shared by participants are unique and have not been fully addressed in the research literature or other works related to land grants and acequias particularly within these communities that affirm and honor Indigenous perspectives. Participants informed each other that they have the knowledge required to teach their own youth as well as other communities about their unique ways of life as well their efforts to decolonize education at the local/state/tribal levels. The notes from break out session discussions reveal important concepts which are prevalent not only for the communities but to Indigenous communities as well like the concepts of interdependency, relationships, reciprocity, collective identity, and environmental justice. These concepts are captured in many of the discussion as well as the lesson plans. Additionally, in some of the discussions, participants emphasized the genízaro lived experiences in relations to these important themes and how the curriculum can benefit all students in New Mexico with its rich diversity of lived experiences and multiple identities. The strong Hispana/o and genízaro traditions prevalent in Northern New Mexico as well as the use of key Spanish language

terms like *mutualismo* and *resolana* were critical to addressing and discussing key ideas/questions related to the history of acequias and land grants.

Finally, these types of critical dialogues led to the creation of lesson plans that reflect the diverse perspectives of the communities. Another important strength is the dedication of key organizers and participants who demonstrated authentic care and commitment to the work that is needed to create an acequia and land grant curriculum for future generations. Many of the successes of Indigenous and other communities of color to control their own education required a core group of committed teachers, parents, leaders and even students to realize their dreams and aspirations for creating an education that will benefit their children and their communities as well as other communities.

#### AREAS FOR IMPROVEMENT

The following is a description of areas in need of growth with regard to the lesson plans and/or lesson recommendations created as part of the May 7th institute. One of the challenges to this and many other similar projects is time and dedication in meeting the short and long-term goals and objectives of the project. Another key area of growth is the need to include the perspectives and voices of the youth (students). While the focus was on teachers, it would be important to have a community driven model curriculum such that the youth and elder alike have their input. With any long-term project especially one that is aimed at decolonizing education, the work requires not only commitment and dedication as exemplified by organizers and participants but time and vision in the long term. That is, *what are the long-term goals for undertaking such an endeavor? How do these goals take into consideration changes that are happening rapidly in terms of climate change, changes in lifestyles, and/or policies and practices of the local communities?* Many of the important ideas related to decolonizing education that were brought up and discussed during the Institute will not happen overnight. They require ongoing critical dialogue and renewed commitment and energy as well as community “buy in” which is often the hardest part of these types of projects. *How will other people in the community relate to or understand this type of curriculum? Will there be resistance to the changes being brought about by the work of the ALGE project organizations and community members?*

Decolonizing projects are long-term projects that require not only building/developing curriculum but also challenging and changing the paradigm of educators, educational leaders, parents, policy makers, and state/federal leaders. Another challenge might be the acceptance of the ALGE curriculum by political and school leaders who are resistant to changes brought forth from

communities of color for their children as well as their efforts to empower their communities, schools, and youth using decolonial frameworks. A strategic approach might be to build on what was shared in the critical dialogues about sharing this curriculum with the local communities and build upon that work before moving out to other communities. In these regards, the project may require ongoing meetings to disseminate the work that has been developed with the larger communities to get their feedback. More so, there is need for growing teachers from the local communities who can effectively deliver these lessons as well as work with higher institutions of learning who have teacher education programs. Teacher education programs have primarily served the state education apparatus instead of local communities. The ALGE project will need to account for the changes they are bringing in developing a unique curriculum that will benefit all students as well as take into consideration these challenges presented. This will require strategic action and ongoing collaboration with other key stakeholder and/or allies across the state and region.

#### RECOMMENDATIONS

The following is a discussion of recommendations and next steps for continuous improvement regarding lesson planning around acequias and land grants in New Mexico. The project should continue building on the investments put into building the partnerships and foster these relationships especially between different organizations, community and university partners, and all stakeholders. More so, the organizers should determine how to best move this work forward by communicating and even collaborating with schools and even community business partners to help broaden the goals of the project scope to other communities in New Mexico with acequias and land grants. Possibly a statewide coalition or alliance of ALGE partners that ally with likeminded groups/organizations pushing for cultural and ecological sustainability is warranted.

Recommendations:

- a. Develop an overarching framework or model for the ALGE curriculum using a cultural metaphor (river, tree, mountain, etc.); a network of participants and/or stakeholders could effectively create a decolonizing educational model based on a shared cultural metaphor.
- b. Create a community advisory board of community members, educators, students, leaders, and policy makers; invite landowners and people who actually live off/on the lands (like weavers/sheepherders, herbalists, gatherers, hunters, and ranchers).
- c. Create a vision and mission for the curriculum; a community river of life activity would be a good way to bring all participants together to develop/refine their mission and vision for the curriculum and strengthen their efforts to implement the curriculum across the state.

- d. Convene more meetings and workshop (time and space) to refine the lesson plans and begin implementation/dissemination phase of the curriculum across the state.
- e. The curriculum needs to be shared with other schools and educators in New Mexico, but more importantly professional sustained learning sessions are needed to discuss the background and significance of the curriculum. These sustained learning can provide opportunities to share culturally responsive pedagogical practices that draw upon the lived experiences of students, families and communities. An important consideration regarding any new curriculum and/or lesson plans is that they will require site-level leadership and instructional capacity to effectively introduce the materials to new teachers. More so, there needs to be a common understanding of curriculum and resources to make them culturally relevant and responsive for use in schools and communities across New Mexico. Culturally responsive pedagogy must be emphasized across all school districts who want to utilize these types of materials because teachers who are not culturally responsive will only use what they want and/or avoid the critical aspects of the curriculum.
- f. Embed ALGE lesson plans, instructional materials, and teaching resources into school wide curriculum and possibly even community-based programs. The idea of creating and allying with local 4H clubs and other organizations was discussed in the breakout sessions. These efforts will make this curriculum a truly inclusive curriculum.
- g. In response to comments made by participants regarding public education as a tool of colonization, it would be important to consider a place-based decolonized framework for creating lesson plans activities including assessments. For example, the lesson planning should move away from typical lesson plan formatting and incorporate more holistic approaches to learning/teaching based on Indigenous and/or critical pedagogy which emphasizes concepts like place(environment), relations, lived experiences, cultural values, contested histories, and a critique and examination of power and oppression. In some of the lesson plans, there is a tendency to keep the emphasis on Common Core and/or State Standards. The ALGE project should consider creating localized cultural standards (in addition to state and national standards) similar to the Alaskan Native cultural standards to emphasize the connections between land, water, people, and culture. <https://uaf.edu/ankn/publications/guides/alaska-standards-for-cult/>
- h. Finally, an integrated thematic instructional (ITI) approach focused on key themes like Identity, Family, Community, and Storytelling would enhance the lesson plans and meet the suggestions made by participants to incorporate more art and music. These ideas are

already embedded in some of the lessons, but more training and professional sustained learning might be needed to train teachers on this approach.

In summary, the present project is demonstrating promising possibilities for developing education materials that address the needs and issues of acequia and land grant communities. Further, the curriculum has the promise of informing all students across the state about land and water rights as well as issues that many communities of color are dealing with for the future. Therefore, these types of curriculum projects are needed because there is a statewide sense of urgency to achieve success in the greater educational system in general and help all schools and communities who are struggling to improve the educational achievement and outcomes in their communities by maintaining, perpetuating, and sustaining the unique ways of knowing and life in New Mexico. Finally, the institute and subsequent work to create culturally revitalizing/sustaining lesson plans begins the process of affirming Indigenous knowledge as well western knowledge leading to a convergence of knowledge systems that are crucial to this decolonizing education. Therefore, the project's outputs in terms of the lesson plans created provided new directions and opportunities for what is possible within the landscape of cultural and environmental sustainability in the Greater Southwest that draws upon Indigenous and Western knowledge.

#### RESOURCES

The following is a list of resources (articles/books) which provide Indigenous perspectives on education and to land and water practices in New Mexico prior to the Spanish/Mexican/and US periods as well as journal articles and/or books on Indigenous education and decolonizing Indigenous perspectives to land and water (restorative and environmental justice) practices in NM and abroad.

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- iv. Barnhardt, R. & Kawagaley, A.O. (2005). Indigenous Knowledge Systems and Alaska Native Ways of Knowing. *Anthropology & Education Quarterly* 36 (1): 8 – 23.

- v. Bishop (2003). Changing Power Relations in Education: Kuapapa Maori Messages for “Mainstream” Education in Aotearoa/New Zealand. *Comparative Education* 39 (2): 221 – 238.
- vi. Braveheart, M. (2005). From intergenerational trauma to intergenerational healing. White Bison Online Magazine. *Wellbriety*, 6 (6): 2 – 8.
- vii. Cajete, G. (2000). *Native science: natural laws of interdependence*. New Mexico: Clear Light.
- viii. Cajete, G. (1999). *A people’s ecology: explorations in sustainable living*. Santa Fe: Clear Light.
- ix. and sustainable self-determination. *Decolonization: Indigeneity, Education & Society*. 1 (1): 86 – 101.
- x. Dunbar-Ortiz, R. (2007). *Roots of resistance: a history of land tenure in New Mexico*. University of Oklahoma Press.
- xi. Corntassel, J. (2012). Re-envisioning resurgence: Indigenous pathways to decolonization
- xii. Donaldson, S., & ZeVan, B. (2005). *American Indian homelands: matters of truth, honor and dignity -- immemorial*. Indian Land Tenure Foundation.
- xiii. Gregorcic, M. (2009). Cultural capital and innovative pedagogy: A case study among indigenous communities in Mexico and Honduras. *Innovations in Education and Teaching International*, 46 (4), 357-366
- xiv. Gruenwald, D. (2003). The Best of both worlds: A critical pedagogy of place. *Educational Researcher* (3), 4, 3-12.
- xv. Joyce, I. (2017). Using Maori Metaphors to Develop Culturally Response Pedagogy of Relations. In Pirbhai-Illlich, F., Pete, S., Martin, F. (Eds.). *Culturally responsive pedagogy: Working towards decolonization, Indigeneity and interculturalism*. (pp. 141 – 164). Cham, Switzerland: Springer International Publishing
- xvi. Kawagley, A. O. (1995). *A Yupiak worldview: A pathway to ecology and spirit*. Waveland Press
- xvii. Kimmerer, R. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge, and the teaching of plants*. Milkweed: Minneapolis.
- xviii. LaDuke, W. (1999). *All my relations: native struggles for land and life*. Cambridge: South End.
- xix. McNally, M. (2004). Indigenous pedagogy in the classroom: A service-learning model for discussion. *American Indian Quarterly*, 28 (3/4), 604- 617.
- xx. McCarty, T. and Lee, T. (2014). Critical culturally sustaining/revitalizing pedagogy and Indigenous educational sovereignty. *Harvard Educational Review*, 84 (1), 101 - 124.
- xxi. Smith, G.H. (2005). Beyond political literacy: From Conscientization to Transformative Praxis. *Counterpoints*, 275, 29-42.

- xxii. Stucki, P. (2012). A Maori pedagogy: Weaving the strands together. *Kairaranga*, 13 (1), 7 – 15.
- xxiii. Nelson, M. (2008). *Original instructions: Indigenous teachings for a sustainable future*. Rochester: Bear and Company.
- xxiv. Sutherland, D. & Swayze, N. (2012). Including Indigenous Knowledges and Pedagogies in Science-Based Environmental Education Programs. *Canadian Journal of Environmental Education*, 80-96.
- xxv. Trinidad, A. (2012). Critical Indigenous pedagogy of place: A framework to Indigenize a youth food justice movement. *Journal of Indigenous Social Development*, 1(1), 1 – 17.
- xxvi. Wazayatiwin & Yellowbird, M. (2012). *For Indigenous Minds Only*. Santa Fe: School for Advanced Research.

#### NEXT STEPS

The last section of this report includes comments on how the ALGE group can continue to build on these lesson plans in ways that speak truth while valuing the complex linguistic and sociocultural realities that make NM Hispanas/os a “hybrid” group that is connected to land and water in this region in complex Indo-Hispano ways. In returning to Ms. Trujillo’s vision of the flow of an acequia she naturally employs a cultural metaphor of a river to create her poster. Cultural metaphors provide a way to center cultural themes and concepts related to important issues and topics like education, identity, land and water. More importantly, in this case, the cultural metaphor affirms cultural beliefs and core values associated with perpetuating ancestral knowledge/wisdom related to land stewardship. The ALGE group can build upon the lesson plans by developing a culture-place based curriculum ‘model’ using a cultural metaphor that is rooted in the land. Cultural metaphors bring people young and old together. More so, they provide a vision of what can be as well as drawing upon the past for knowledge that informs the present. In some Indigenous communities, educators have created their educational models to replace the traditional US educational model that supplants their efforts to teach about and from the land using their own cultural values, languages, and traditional teachings. In this way, the ALGE project can be an exemplary place-based curriculum model for learning/teaching about a unique way of life rooted in the land of what is now New Mexico based on ancestral/contemporary knowledge that is diverse and dynamic as its people and changing with the ebb and flow of our society.



# Section 3

## Developing Acequia and Land Grant Curricula Job Aid and Guidance Doc

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## CONTENTS

The Job Aid: Acequias and Land Grants Curriculum

Part Two: A SAMPLE of a High-Level View of a Curriculum Development and Implementation Calendar

New Mexico Land and Water Guidance Doc

Introduction

Acequias and Land Grants — Land and Water

Land and Water Curricula

So, what's a Job Aid?

So, what's a curriculum?

Advanced Organizer

1. About Us

2. Who we Serve

3. Your Curriculum Type(s) and Reason(s)

4. Your curriculum content and/or performance Outcomes

5. Your Acequia and Land Grant academic content

6. Your curriculum instructional strategy and methods

7. The curriculum assessment strategy and methods

8. Developing a High-Level View of Your Curriculum Calendar

Exemplars: ALGE Curriculum Support

Land Grant Resources: ALGE Curriculum Support

# The Job Aid: Acequias and Land Grants Curriculum

The purpose of this Job Aid is to help teachers and schools rapidly develop a customized academic curriculum outline related to New Mexico acequias (waterways for irrigation) and/or community land grants. In just a short time, you'll be able to get started on a curriculum that specifically targets the needs of your own local students, classrooms, grades, schools, or communities. This Job Aid will walk you through the process of creating a curriculum outline, large or small. It's your choice, but we recommend that you start with something small and manageable, and after you're familiar with the process, you can begin implementation and gradually flesh out the skeletal outline with your notes or narrative. And you can take it from there.

In addition to this quick-start Job Aid, you can refer to the accompanying Land and Water Guidance Doc that you can use as a reference or for more elaboration on specific steps in the process. In fact, we recommend that you read the first few pages of the guidance to get a high-level overview of what job aids, acequias, land grants, and curricula are all about. So, don't be hesitant, jump right in. The water in the acequia is just right!

## 1. About Us (The curriculum development team)

*Tip:* For your first project, it may be best to initially involve only a small number of pertinent instructional staff in the curriculum development task. Generally, one-to-three (1-3) team members might be more productive than six or eight (6 or 8), but you can invite others later as needed or desired.

Place a checkmark in ALL relevant boxes.

Administrators <input type="checkbox"/>	Community & Parent Stakeholders <input type="checkbox"/>	Educational Assistants <input type="checkbox"/>	Program Staff <input type="checkbox"/>
Students <input type="checkbox"/>	Subject Matter Experts <input type="checkbox"/>	Teachers <input type="checkbox"/>	Others <input type="checkbox"/>
<p><i>Elaboration:</i> Add notes here...</p>			

**2. Who Will We Serve?** *Tip:* Focus only on the grade(s) or group(s) with whom you have a working relationship or who may be actively using your instructional curriculum. Check all grades/levels that apply for your team.

Pre-K  K  1  2  3  4  5  6  7  8   
 9  10  11  12  College  Community  Other

*Elaboration:*

## 3. Optional: Your Curriculum Type(s) and Reason(s). Check all that apply.

What kind of acequia or land grant curriculum do you want? This may be optional for a single classroom curriculum, but highly important if the curriculum is designed to organize academic content across grade levels, community activities and/or college courses and programs. Instead of being like a movie where everything is self-contained, you might think of it like a TV series, where each episode is a semester or multi-year program of study.

There are different curriculum types and characteristics, and you can customize your own however you wish. To determine a *type*, think about the reason you want a new curriculum. It's best to begin with just one or two (1 or 2) desired *types* or *reasons*. You can always change, reduce or even add more desired *types* at a later time, especially after you gain a sense for how the project is developing. *But for now, keep it short!*

a. To focus our teaching and learning on our grade level personal and performance <b>goals and objectives</b> .	<input type="checkbox"/>
b. To focus on teaching and learning specific content and skills knowledge, including courses, subjects, topics, lessons, and/or modules.	<input type="checkbox"/>
c. To better <b>select and sequence</b> our grade-level subjects, topics, activities, and materials.	<input type="checkbox"/>
d. To sharpen our focus on instructional and experiential <b>strategies and methods</b> .	<input type="checkbox"/>
e. To focus more intentionally on planned or desired <b>outcomes</b> , such as student behaviors, affective/emotional development, and practical experience.	<input type="checkbox"/>
f. To practice and focus more on validation or verification through authentic, cognitive or performance <b>assessments</b> .	<input type="checkbox"/>

*Elaboration:*

Add notes or other reasons here...

**4. Your Anticipated Curriculum Content and/or Performance Outcomes:**

Really? We have to choose people, types, reasons, and outcomes? Outcomes are simply the overall goals and objectives you anticipate as a result of implementing your curriculum with your students. Try this: Take five (5) minutes to choose one to three (1–3) kinds of content and/or performance outcomes that you anticipate might be doable for your students. Remember, you can add, subtract, divide, and/or multiply these target outcomes as you go along. However, you don't want to stress out your staff and teachers by trying to think about too many outcomes all at once. Chances are pretty good that you will touch on many, and possibly all of them, along the way.

And, don't forget, later you can focus on subordinate outcomes for specific activities and lessons.

a. To anchor standard grade-level content to authentic local contexts.	<input type="checkbox"/>
b. To boost student interest in academic content and engagement in schooling.	<input type="checkbox"/>
c. To enable participants' cultural and social connectedness.	<input type="checkbox"/>
d. To encourage student reduction in risk behaviors.	<input type="checkbox"/>
e. To enhance student and teacher knowledge and understanding of the local community culture, history, and problem-solving strategies.	<input type="checkbox"/>
f. To foster student relationships and cooperation with the local community.	<input type="checkbox"/>
g. To practice and enhance student communication and presentation skills.	<input type="checkbox"/>
h. To promote student gain in protective factors and/or pro-social behaviors.	<input type="checkbox"/>
i. To provide context for student learning in academic content standards and skills knowledge.	<input type="checkbox"/>
j. To raise student performance on academic assessments.	<input type="checkbox"/>

Other / Elaboration:	...
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**5. Your Acequia and Land Grant Educational Content.** What do you want students to learn? Check all that apply, but don't add any that you're unsure of because you can add them later if needed.

a. <b>Facts:</b> These are simply things we know or believe to be true.	<input type="checkbox"/>
b. <b>Concepts and Definitions:</b> Redefining something based on combinations of facts and ideas.	<input type="checkbox"/>
c. <b>Literacy Skills:</b> Reading, writing, speaking, and listening.	<input type="checkbox"/>
d. <b>Rules and Procedures:</b> Learning about steps or procedures or processes to accomplish certain tasks.	<input type="checkbox"/>
e. <b>Problem-Solving Skills:</b> Learning how to figure out solutions to problems and opportunities.	<input type="checkbox"/>
f. <b>Social-Emotional and Personal Development:</b> Learning how to feel better and how to become a better student and person in society.	<input type="checkbox"/>
g. <b>Strategies and/or Principles:</b> Learning combined activities and techniques to accomplish a desired outcome and to know more about correlations and causality for making sense of new knowledge and experiences.	<input type="checkbox"/>
h. <b>Higher-Order Thinking:</b> This level is about putting any or all of the above learning levels together in order to think critically, solve problems, invent solutions, and make sense of new phenomena.	<input type="checkbox"/>

Other / Elaboration:	...
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**6. Your Curriculum Instructional Strategy and Methods.** *How will students learn? What will students and teachers do? Below are some quick examples. As with everything else in developing a curriculum, start with just a few items.*

a. Authentic Experience / Situated Learning, and Assessment	<input type="checkbox"/>
b. Cooperative/Collaborative (Group Work) Learning	<input type="checkbox"/>
c. Culturally Responsive Teaching and Learning (CRT)	<input type="checkbox"/>
d. Discovery Learning	<input type="checkbox"/>
e. Direct Instruction (lectures and demonstrations)	<input type="checkbox"/>
f. Expeditionary and/or Experiential Learning	<input type="checkbox"/>
g. Focusing and Enhancing Student Academic Self-Efficacy/Confidence	<input type="checkbox"/>
h. Focusing or Promoting Growth Mindsets	<input type="checkbox"/>
i. Guest Presentation and Q & A	<input type="checkbox"/>
j. Hybrid Online/In-Person Learning	<input type="checkbox"/>
k. Inquiry-Based Learning	<input type="checkbox"/>
l. Language or Bilingual Proficiency Development	<input type="checkbox"/>
m. Literacy Development: Reading, Writing, Speaking, Listening	<input type="checkbox"/>
n. Memorization, Drill and Practice	<input type="checkbox"/>
o. On-line Distance Learning	<input type="checkbox"/>
p. Play-Based Learning	<input type="checkbox"/>
q. Problem-solving skills	<input type="checkbox"/>
r. Product-Based Learning	<input type="checkbox"/>
s. Project-Based Learning (PBL)	<input type="checkbox"/>
t. Service Learning	<input type="checkbox"/>
u. Self-Directed Learning OR Student Learning by Design	<input type="checkbox"/>
v. Skills Development	<input type="checkbox"/>
w. Storytelling	<input type="checkbox"/>
x. Student Performance or Presentation	<input type="checkbox"/>
y. Worksheets (creating, using, or re-purposing)	<input type="checkbox"/>
z. Youth Empowerment and On-the-Job Training (OJT)	<input type="checkbox"/>

Elaboration:

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## 7. The Curriculum Assessment Strategy and Methods.

It is a good idea to determine in advance what kind of assessment(s) you plan to use at certain milestones in your instructional program.

*Check all that apply, but only one or two (1 or 2) should serve as your primary assessments.*

Please refer to the *Land and Water Guidance Doc* for more discussion.

a. Authentic content testing	<input type="checkbox"/>
b. Authentic performance	<input type="checkbox"/>
c. Behavioral Assessment	<input type="checkbox"/>
d. Performance Assessment	<input type="checkbox"/>
e. Standards-Based Assessments	<input type="checkbox"/>
f. Student and/or Group Self-Assessment	<input type="checkbox"/>
g. Student Presentation and Feedback Review	<input type="checkbox"/>

Elaboration:

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Part Two: A SAMPLE of a High–Level View of a Curriculum Development and Implementation Calendar

<u>Activity</u>	<u>DateandTime</u>	<u>Participants</u>
Pilot Invitational Meeting	Sept. 16th 10:00 AM	Curriculum Team members:
Kickoff Invitational Celebration	Sept. 23rd 3:00 PM	All interested school persons (including instructional and administrative staff and students), and all interested community stakeholders
Course Lessons Calendar	Every Friday for the Semester	Instructional Staff, Students, and Volunteer Community Supporters
Course Assessments Calendar	Fridays after State Testing	Instructional Staff and Students ( <i>and program evaluators, if applicable</i> )
Family and Community Shared Events Calendar	First Friday of Each Month	All school and family participants
Course Completion Celebration	Dec. 18th 10:00 AM	All school and community participants

<i>Elaboration:</i>	...
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# New Mexico Land and Water Guidance Doc

## Instructions and Narrative Support for Developing ALG Curricula

### Introduction

This guidance document provides technical and content support for the *Acequias and Land Grants Curriculum JOB AID*. It's kind of like a job aid for the JOB AID. The JOB AID and this Guidance are specifically designed for developing a curriculum outline on the subjects of New Mexico land grants and acequias (*the subjects*). Later, you can flesh out your outline with notes and narrative as you wish using local resources and the extraordinary amount of content readily available on these subjects in the public domain. The missing piece in the available literature on these subjects, however, is information on how educators can select and sequence grade-level content and how they can rapidly develop academic and instructional curricula.

### Acequias and Land Grants — Land and Water

The people of New Mexico have a great appreciation for the elements of the earth that sustain our collective existence. Firstly, the **Native Peoples** of this land managed the ecology in order to foster tremendous achievements in collective and sustainable agriculture and food production over a great many centuries. Later, the Spanish and Mexican settlers — followed by French, American and other colonists and explorers — settled into New Mexico and brought with them their own sets of rules and understandings for managing the land and elements. Land and water management in New Mexico has evolved from a blend of these diverse systems.

**Acequias.** Hundreds of years before the arrival of the Spanish in New Mexico, the Ancestral Puebloans had complex irrigation systems that provided food for large cities such as Chaco Canyon. As early as 1598, Spanish explorer–settlers brought with them the *acequia* (waterway or watercourse)<sup>1</sup> system of water sharing, distribution of water for agricultural irrigation, and ecological management. As they learned about the diverse landscapes and ecologies of the local and unique regional environment, they began to integrate their knowledge of acequias with the irrigation systems that were already in place.

<sup>1</sup> "Acequia" defines both the ditch and the community managing it.

**Land Grants.** In New Mexico, land grants (*mercedes*) were granted to both individuals and communities. Community land grants include those that recognized Pueblo Indian land tenure and many individual land grants that became community land grants over time. For this job aid, we focus specifically on *community land grants*, where most of the land is owned and managed communally, while individual members may privately own their parcels.

Little is known about land grants before the Pueblo Revolt of 1680, when Pueblos united with surrounding tribes to expel the Spanish from New Mexico because of the abusive practices of civil and ecclesiastic officials. When the Spanish returned in the 1690s, they resettled using private and community lands grants and made a greater effort to protect the land tenure of Pueblos, issuing land grants to Pueblos that recognized their land base. Spain continued issuing land grants through the 1820s, and Mexico granted both private and community land grants beginning with their independence from Spain in 1821 through the 1840s.

In modern times, we're finding that every local community has a somewhat unique system for managing their land and water resources. For land grants and acequias, these systems were mostly characterized by communal self-governance and guardianship, often through democratic or consensual selection of local stewards.

It's essential for the current generation to learn how New Mexico communities have sustained themselves over the years with water sharing and conservation, in addition to learning about cooperative usage and management of communal lands for economic development, community services, recreation, ranching and food production. It's also important for them to be aware of ongoing issues that involve the ownership, control, and/or stewardship of our lands and water. These issues often involve expensive and emotional legal disputes that affect not only the social relationships among neighbors and communities, but also the relationship between communities and the federal, state and local governments. Formal education about these issues holds significant promise for reducing future complications and finding new pathways for resolving differences in mutually beneficial ways. It also ensures that younger generations maintain their stewardship New Mexico's land and water informed by the traditions and values of their ancestors.

## Land and Water

Although there is a great deal of related content knowledge within the acequia and land grant subject domains, there is very little available in terms of documented, structured and/or formalized educational curricula. Acequia and land grant domains are broad knowledge systems; they are *ill-structured domains* because they lack well-defined grade-level instructional content for universal purposes. Also, the same content doesn't necessarily mean the same thing in different locales.

The study of these subjects involves a great deal of unique details and characteristics at the local level. As a result, the instructional topics for these subjects may vary, sometimes considerably, for different communities. For example, the topics may be uniquely different across various counties, school districts, cities and townships within the state.

Instructional designers and curriculum developers would likely determine that the basic, general, and historical study of acequias and land grants is well suited for the lower grades. And they're right, because the study of these subjects requires that all grade/education levels have at least a basic understanding of the general facts and concepts. However, the localized philosophical, contemporary, and practical purposes of acequias and land grants might be more academically suitable for the middle-to-upper grades.

At the college and graduate-professional levels, students may still need some of the same general elementary and preparatory sequence of courses, subjects and topics, but at a much faster pace. Additionally, at the higher intellectual levels of study, particularly within the institutions of higher education, students may need to interpret statistics, statutes, standards, case law, agrarian and agricultural issues, and community rights and regulations at both the community administrative level, as well as vis-à-vis state and federal policy.

The levels of understanding of our relationships with land and water begin at birth and continue, unfinished, into succeeding generations. The study of land and water issues should therefore be of paramount importance in public education.

**The curriculum experts.** The educational **experts** in a school, at any level, are the instructional staff. They're the ones who work with students on a daily basis and have most likely spent years studying educational philosophy and theory, including instructional design, classroom strategies, and assessment methods. Therefore, it's better to leverage

the experts' years of training and education, as well as their local knowledge and relationships from within the community. They're the ones who can best improve the educational system where they are.

Moreover, there are guideposts that we can take advantage of related to creating an acequia and/or land grant curriculum, and that's what this job aid is all about. In the process of completing the skeletal job aid, staff members can brainstorm, suggest ideas, and remind themselves some of what they already know, or thought they knew, or need to know, regarding curriculum development.

### So, what's a Job Aid?

A *job aid* has many synonyms, such as *task aid*, *performance aid*, and even digitally as an *Electronic Performance Support System (EPSS)*. A *JOB AID* is simply a two-syllable way of stating the obvious: it's a way of making a task, or set of tasks, simpler, more straightforward, easier to understand, and also quicker to understand and implement. What we're trying to do with this particular job aid is to make the task simpler, easier, and more efficient for your curriculum development team. We propose, therefore, that you consider our limited-steps, flexible approach, which makes it possible to launch the process in an afternoon and begin implementing the curriculum in your school soon thereafter. This rapid implementation of curriculum is possible because you are allowed the flexibility to learn and modify your curriculum as you try it out over time. After learning by doing, soon you will have the curriculum that works for students at your particular grade level(s) in your relevant communities.

### So, what's a curriculum?

Communities everywhere have been working on *educational or academic curricula* since time immemorial. It's an expansive field, and that can mean just about anything one might wish it to. For some, a *curriculum* is a semester-long academic course. For others, it might be a six-part expeditionary learning series designed to engage students in experiencing educational content with the dual-purpose of making it so transformative that they are re-energized to become better and more motivated students and life-long learners. A curriculum can also be something that can be conducted in as little as a few parts, involving a school-community partnership, a couple of field trips involving some mini-tours and hands-on tasks that explore the local acequias and community land grants, culminating in a school-community workshop or celebration.

The definitions can vary depending on the intentions of the author. And you can also create your own definition. Wikipedia, citing Kelly (2009) and Wiles (2008)<sup>2</sup> summarizes it like this:

*In education, a curriculum is broadly defined as the totality of student experiences that occur in the educational process. The term often refers specifically to a planned sequence of instruction, or to a view of the student's experiences in terms of the educator's or school's instructional goals.*

The instructional staff is also likely to benefit in planned or untold ways as well. So, there you have it, you're free to define your intentions for a curriculum that meets the needs of your students and your instructional staff, and in some cases, the needs of your administration and the local community. Let's get started.

### Advanced Organizer

Obviously, it behooves a school-based curriculum design team to first figure out what they wish to do, with whom, and to what effect. The process sounds complicated at first, but once the team gets started, you could realistically move relatively swiftly through the process.

#### **Do this, Don't do that**

As you proceed step by step, don't over-complicate it:

1. Think about the shortest and quickest path to get through each step (we're talking minutes, not anything longer than that to begin with):
  - **Don't over do it.** Otherwise, you'll enter the zone of *cognitive overload*, where your project ideas get too big and complex, therefore impeding your ability to even get started.
  - **Do it chunk by chunk.** Today's instructional designers are less stodgy and fastidious than their predecessors. Instead of a fixated linear process, they tend to believe that we should do what we need to do when we need it, not everything at once, and only the parts that we really need to do. The same should go for *initially* creating a curriculum.
  - **Remember.** You can still change or add more aspects to your curriculum concept later. And you can count on the fact that you probably will.

<sup>2</sup> <https://en.wikipedia.org/wiki/Curriculum>

**2. Give yourself and your students credit** for having some expertise and/or life experience related to the subject matter. If you have a better idea for your curriculum purpose than the choices given below in this guidance, don't be afraid to use your own ideas. No doubt, your students will still be immersed in rigid, inflexible curricula in other subjects. You can use acequias and land grant learning to step out of the brick and mortar box and let your students explore and experience new ways of thinking, seeing, learning and creating; including outdoors whenever possible.

**3. Give the local community members and its elders credit** for their subject matter and life experience expertise. Consider bringing community members into your classroom to promote cross-generational learning and connectedness.



2022 ALGE Teacher's Mini Institute  
(Photo courtesy of UNM Land Grant Studies Program)



## 1. About Us

The job aid asks you to determine who should be part of your curriculum development team. We recommend that you focus on a core team of instructional staff, simply because curriculum content is designed to be instructional, and they're the ones who know how to do it. Again, we recommend that you choose a limited number, such as one-to-three (1–3) team members.

Administrators	<input type="checkbox"/>	Community & Parent Stakeholders	<input type="checkbox"/>	Educational Assistants	<input type="checkbox"/>	Program Staff	<input type="checkbox"/>
Students	<input type="checkbox"/>	Subject Matter Experts	<input type="checkbox"/>	Teachers	<input type="checkbox"/>	Others	<input type="checkbox"/>

## 2. Who we Serve

The job aid asks you to determine the grade range your acequias and land grant curriculum will serve. Don't try to do it all, try to do it **well** for the students you serve. The grade level experts include the classroom specific teachers and their students. Therefore, it's often a good idea to allow these day-to-day subject-matter experts to have significant input about how the curriculum can best focus on their needs.

Pre-K	<input type="checkbox"/>	K	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>	5	<input type="checkbox"/>	6	<input type="checkbox"/>	7	<input type="checkbox"/>	8	<input type="checkbox"/>
9	<input type="checkbox"/>	10	<input type="checkbox"/>	11	<input type="checkbox"/>	12	<input type="checkbox"/>	College	<input type="checkbox"/>	Community	<input type="checkbox"/>	Other	<input type="checkbox"/>						

## 3. Your Curriculum Type(s) and Reason(s)

*Instructions.* As it says on the job aid, it's a good idea to think in advance about the *reason(s)* you even want a new instructional curriculum. In some cases, it might be important to sequence or arrange instructional content in a school or across grades or where you're working with multiple curricula. For a single classroom curriculum, or even just a conference or workshop series, this step may be optional.

This should not be confused with the academic outcomes that you're going to aim for in the next step. It can be a little tricky, but don't get carried away! Trying to focus too much on why you even need a curriculum can result in *momentary brain freeze!*

Think about it this way? Somebody in the elevator is going to ask you *WHY* are you developing an acequia or land grant curriculum? You know, your elevator speech. You want

to tell them the reason in the short time you have. And remember, the reasons are optional for single-classroom or lower grade-level curricula.

It's best to pick just a couple of types or reasons to get started. That way you can aim for more specific and greater results on targeted academic outcomes than if you try to do it all. In some rare cases, it might be the school or district administrators or curriculum specialists who want to know how your academic content is organized before you announce your targeted instructional outcomes.

And, if desired, you can add or subtract more 'reasons' as you go along, including after the project is well underway.

**Here we go.** If this applies to you, think about picking one or two (1 or 2) of the general curriculum types or reasons below:

- To focus our teaching and learning on our grade level personal and performance **goals and objectives.**
- To focus on teaching and learning specific **content and skills knowledge**, including courses, subjects, topics, lessons, and/or modules.
- To better **select and sequence** our grade-level subjects, topics, activities, and materials.
- To sharpen our focus on instructional and experiential **strategies and methods.**
- To focus more intentionally on planned or desired **outcomes**, such as student behaviors, affective/emotional development, and practical experience.
- To practice and focus more on validation or verification through authentic, cognitive or performance **assessments.**

## 4. Your curriculum content and/or performance Outcomes

Now, take five to 10 (5–10) minutes to choose one to three (1–3) kinds of content and/or performance outcomes. Remember, be selective to begin with and then expand your target outcomes after you are easily meeting the ones you chose to focus on.

- To anchor standard grade-level content to authentic local contexts.
- To boost student interest in academic content and engagement in schooling.
- To further enable participants' cultural and social connectedness with the local community.
- To encourage student reduction in risk behaviors.
- To enhance student and teacher knowledge and understanding of the local

community culture, history, and problem–solving strategies.

- f. To foster student relationships and cooperation with the local community.
- g. To practice and enhance student communication and presentation skills.
- h. To promote student gain in protective factors and/or pro–social behaviors.
- i. To provide context for student learning in academic content standards and skills knowledge.
- j. To raise student performance on academic assessments.

### 5. Your Acequia and Land Grant academic content

Early on, you want to start focusing on your Acequia and Land Grant academic content. You can change the content whenever you wish, so don't worry about getting it perfect in advance. The point is to maximize the educational experience and education of your students. For example, in the beginning you might not realize how much support and learning can be gained from the local community. Stay open to opportunities to improve the education of your students!

Keep in mind a couple of points: Educational content is best differentiated by grade level. Remember the learning taxonomies you were told to memorize in college? Some of the mainstays include Bloom's *Taxonomy*, or Gagne's *Nine Events of Instruction*, or even Wiggins and McTighe's *Six Facets of Understanding*. In general, they proceed from facts to concepts, to rules and procedures, and on to strategies and principles, and eventually higher order thinking.

For the early grades, for example, students will learn historical facts and definitions related to the given content, and in later grades, on through graduate and professional school, they'll need to practice more problem–solving, critical thinking, and invention. Nonetheless, every student, at every level, needs facts and knowledge to build upon. Younger students, such as grades K–3, need simpler facts than older students. However, every student, no matter the age, needs to learn on the spectrum from facts to principles. For example, preschoolers need to know the principle that water runs downhill, while college students need to know the principle that the ecosystem requires a constant balance of all beings and elements within the physical environment.

In general, when we consider the scope from kindergarten throughout higher (K–19) education, it gets a little easier to conceptualize. But learning still ranges from the broadly

holistic (any combination of educational experiences) to the more descriptive and/or prescriptive.

If all of this is taken into consideration, it will make sense that we need to sequence our topics and subject matter from the simple to the more complex, all tied, of course, to grade–level instructional material.

**One word of caution as you get started:** Don't get carried away by trying to do too much too soon! Trying to focus on engineering your curriculum may result in didactic and narrow–minded instruction. Now, set all of that aside, and think of your students. Obviously, your first instructional lessons in the curriculum should probably proceed like the 1950s and '60s TV police show *Dragnet* investigation, with "*just the facts, ma'am.*"

Later, of course, you will gradually upgrade the lesson instructional and content sophistication. To start with, however, for your grade level, jot down some ideas related to your grade or group at the beginning levels. Of course, facts and concepts in kindergarten will be different from those at the college level.

**Everyone needs facts.** Acequia and land grant facts in the early grades might include some history and definitions, but in the upper grades the fact–based material might also include weights and measures for water allocation, sharing, and distribution or uses of common lands or how communities were traditionally laid out and organized. Both of these examples can help students understand the relationship of land grants and acequias with the local ecosystem and New Mexico history.

So, as an example, perhaps the younger students can do hands–on exploration of the water running through the local acequias and have some fun afterwards learning some on–site history while the older kids explore water safety through a microscope. Professional adults in higher education can analyze New Mexico's long history of land and water case law as well as strategies for countering climate disruptions.

Where do we get grade–level content material? It's all over the place. If you use a search engine on the term "acequias in education," you'll get about 298,000 results (try it out). And for "land grants in education?" There are literally millions of hits. We can search for acequias and "New Mexico" in quotes and the results are still enormous. Most contemporary educators, however, moonlight at home as search engine and social media specialists, so they'll have no problem gathering information in a targeted search. One can immediately see that the topics are of critical importance to our state, for many different reasons!

Luckily, in New Mexico we have a number of subject-matter experts (SMEs) and educational material resources to help us sift through the content. We provide a starter list of some instructional examples and SMEs in a separate document that complements this job aid. See also the following resource documents: *ALGE Exemplars*, *ALGE Acequia Resources*, and *ALGE Land Grants Resources* wherever you find this guidance.

Learning Taxonomy Definitions and Examples
<p>a. <b>Facts:</b> These are simply things we know or believe to be true. They are usually not disputable, like a date that something happened, a person or place name, or a location on a map. Some quick examples are provided below:</p> <ul style="list-style-type: none"> <li>• <b>Example of K-3 grade level factual study question.</b> Who are the <i>mayordomos</i> (leadership) and <i>parciantes</i> (members) of the local acequia? Regarding land grants, who are the heirs and <i>comisionados</i> (commission members elected by <i>parciantes</i>) of the land grant?</li> <li>• <b>College-level question.</b> What are the landmark legal and policy documents that regulate the sharing and distribution of water for irrigation purposes in our state?</li> <li>• <b>What are some examples for your curriculum grade level?</b></li> </ul>
<p>b. <b>Concepts and Definitions:</b> Redefining something based on combinations of facts and ideas.</p> <ul style="list-style-type: none"> <li>• <b>Example study question.</b> How do local acequias fit in with the overall infrastructural water management system in our state?</li> <li>• <b>Your examples:</b></li> </ul>
<p>c. <b>Literacy Skills:</b> Reading, writing, speaking, and listening.</p> <ul style="list-style-type: none"> <li>• <b>Example.</b> Read a grade-level story about acequias or land grants, write something about it, and then present something about it to the class.</li> <li>• <b>Your examples:</b></li> </ul>
<p>d. <b>Rules and Procedures:</b> Learning about steps or procedures or processes to accomplish certain tasks.</p> <ul style="list-style-type: none"> <li>• <b>Example.</b> What steps do we need to take to organize a community effort to clear brush and debris from community land and water systems?</li> <li>• <b>Your examples:</b></li> </ul>
<p>e. <b>Problem-Solving Skills:</b> Learning how to figure out solutions to problems and opportunities.</p> <ul style="list-style-type: none"> <li>• <b>Example.</b> What are some analyses and communication techniques we can use for resolving land or water usage disagreements due to lack of understanding?</li> <li>• <b>Your examples:</b></li> </ul>
<p>f. <b>Social-Emotional and Personal Development:</b> Learning how to feel better and how to be a better person.</p> <ul style="list-style-type: none"> <li>• <b>Example study activity for adolescents and adults:</b> Watch a movie like <i>The Milagro Beanfield War</i> and then discuss questions like this: <i>Why was it</i></li> </ul>

*important to the Milagro community that all or most of its citizenry be involved in local water issues? Why should everyone care? What value is it to an individual to be part of social effort to accomplish something for the community? What else can we get out of the story?*

- **Your examples:**

g. **Strategies and/or Principles:** Learning combined techniques or procedures to accomplish a desired outcome and to know more about relationships and causality for making sense of new knowledge and experiences.

- **Example of a college level principles study question:** How do local community land grants fit in with the overall infrastructural land management system in our state? Are these parcels of land endangered?
- Regarding land grants, in what ways do the *comisionados* oversee the work of the *mayordomos*? What are various roles and services they provide in coordination with the local community, and why might this be an effective hybrid communal-private property management system?
- How and why does depleting a water source without replenishing it result in potential problems?

h. **Higher-Order Thinking:** This is about putting any or all of the above learning levels together in order to think critically, solve problems, invent solutions, and make sense of new phenomena.

- **Example.** How do we mitigate the effects of widespread drought and climate change to ensure continued farming in our state?
- **Other examples:**



Manzano Lake  
(Photo courtesy of UNM Land Grant Studies Program)

## 6. Your curriculum instructional strategy and methods

*Instructions.* As with purposes, it's best to pick just a few strategies and methods to get started. In this way, you can take advantage of the flexibility you might need to adjust to the realities of the school day. Of course, you can add, delete, or modify your strategies as you learn more and get a feel for how it's going, including after the project is well underway.

There is no shortage of instructional design models and teaching and learning strategies. No doubt, your instructional team members already know about most of them.

In many cases, such as learning new or unfamiliar content, it might be best to keep it simple: a) What do you want students to learn, 2) how are you going to get them to learn it, 3) how will you know if they are getting it. Also, don't be so focused on what you, the teacher(s) or professional developer(s) are going to do; the best instruction focuses on what the students are going to do! You might be able to give an awesome presentation, but what will your students be able to do with the information after you've completed your presentation?

As educators, you are no doubt familiar with many of the educational strategies listed below. However, we advise you to choose just one or two strategies that you can do well (and you'll probably end up doing most of the rest anyway).

1. Authentic Experience / Situated Learning, and Place-Based Learning and Assessment
2. Cooperative/Collaborative (Group Work) Learning
3. Culturally Responsive Teaching and Learning (CRT)
4. Discovery Learning
5. Direct Instruction (lectures and demonstrations)
6. Expeditionary and/or Experiential Learning
7. Focusing and Enhancing Student Academic Self-Efficacy/Confidence
8. Focusing or Promoting Growth Mindsets
9. Guest Presentation and Q & A
10. Hybrid Online/In-Person Learning
11. Inquiry-Based Learning
12. Language or Bilingual Proficiency Development
13. Literacy Development: Reading, Writing, Speaking, Listening
14. Memorization, Drill and Practice

15. On-line Distance Learning
16. Play-Based Learning
17. Problem-solving skills
18. Product-Based Learning
19. Project-Based Learning (PBL)
20. Service Learning
21. Self-Directed Learning OR Student Learning by Design
22. Skills Development
23. Storytelling
24. Student Performance or Presentation
25. Worksheets (creating, using, or re-purposing)
26. Youth Empowerment and On-the-Job Training

**Learning by Doing.** Wikipedia summarizes it nicely. Quote: *Learning by doing refers to a theory of education. This theory has been expounded by American philosopher John Dewey and Latin American pedagogue Paulo Freire. It's a hands-on approach to learning, meaning students must interact with their environment in order to adapt and learn.*

**Product-Based Learning.** This makes so much sense in today's world, where students may have to be more self-directed, inventive, and/or entrepreneurial. In summary, this PBL (not Problem or Project-Based) helps students improve their skills at all stages of self-directed learning. Students figure out partly by themselves how to create or invent their own products, and then they may possibly start a little business or operation to share their product(s). The skill learning is endless, and the rewards have great potential.

**Worksheets.** Worksheets are sometimes overused, and they should never become the core of the teaching/learning process. That said, there are many engaging worksheets available with relevant land and water activities that may come in handy for practicing different kinds of learning strategies, such as problem solving, reading, writing, etc. Some worksheets can be re-purposed for specific use with acequia and land grant educational content. For example, you can locate worksheets that deal with waterways or irrigation and see how they fit with your acequia content. Many websites have hundreds of really great worksheets aligned to grade level subjects and topics, as well as common core state standards. Just browse the term "free worksheets" to get started, but again, instructional experts caution us to be wary of their overuse.

## 7. The curriculum assessment strategy and methods

Finally, it is best to think in advance about your assessment or evaluation methods. Assessment usually means interactive feedback between teachers and students and sometimes others such as parents and school personnel. Educational evaluation is traditionally thought of as a process of using strategies and measures to judge effectiveness or achievement of students, teachers, and school material, and often includes considerations by administrative officials and even government educational systems and the public. That age-old thinking about evaluation, however, is changing, thankfully. New thinking on evaluation considers new strategies of evaluation that inform and support, instead of just judging. These include non-judgmental participatory methods, where evaluators collaborate with the participants to cooperatively learn what a school or program can do to continuously improve.

The goal(s) in these new assessment and evaluation methods is not to judge, but to help everyone get better at what they do.

For this final step in the process of your first draft of a curriculum outline, choose one or two (1–2) assessment methods that match up well with all of the other characteristics of your curriculum. Remember, you can always change up, as you need, to make things better when new opportunities arise, which will certainly occur over time.

- a. **Authentic Content Testing:** Assess students using real content from a real or simulated situation.
- b. **Authentic Performance:** Assess students doing something in "the real world."
- c. **Behavioral Assessment.** Observe students enacting a task.
- d. **Performance Assessment.** Assess how well students accomplish a task.
- e. **Standards-Based Assessments.** Test students using standard or multiple tests or measures against pre-defined criteria.
- f. **Student and/or Group Self-Assessment.** Observe and instruct students on how well they can learn to assess themselves
- g. **Student Presentation and Feedback Review.** Let students experience the act of being a teacher or expert so that they can develop expertise in a given domain. The review process should always be positive, constructive, friendly, and encouraging!

## 8. Developing a High-Level View of Your Curriculum Calendar

<u>Activity</u>	<u>Date and Time</u>	<u>Participants</u>
Pilot Invitational Meeting	Mon. Sept. 11th 10:00 AM	Curriculum Team Members:
Kickoff Invitational Celebration	Tuesday. Sept. 19th 3:00 PM	All interested school persons (including instructional and administrative staff and students), and all interested community stakeholders
Course Lessons Calendar	Every Friday for the Semester	Instructional Staff, Students, and Volunteer Community Supporters
Course Assessments Calendar	Fridays after State Testing	Instructional Staff and Students ( <i>and program evaluators, if applicable</i> )
Family and Community Shared Events Calendar	First Friday of Each Month	All school and family participants
Course Completion Celebration	Last Day of the Year or Semester	All school and community participants

Other / Elaboration:

We hope that the job aid and this guidance document have been helpful to you and your team in developing an acequia and/or land grants curriculum!

Check out our related documents on *ALGE Exemplars*, *ALGE Acequia Resources*, and *ALGE Land Grants Resources*! You'll find them in the same online location as the job aid.

# EXEMPLARS: ALGE CURRICULUM SUPPORT

The following high quality examples were compiled through questionnaire responses, personal communications, and/or by high placement in an online search

Contributor: Adrian Sandoval, Director, CESDP	
Affiliation	Center for the Education and Study of Diverse Populations
Curricula Title(s) and Description	<b>Drawing From the Well.</b> A comprehensive educational program that integrates academic learning, community research, technology skills and creative expression that benefits students, teachers and community members.
Link	A general description and videos are available at <a href="http://www.cesdp.nmhu.edu/index.php/drawing-from-the-well/">http://www.cesdp.nmhu.edu/index.php/drawing-from-the-well/</a>
Sharing	Full curriculum is available free of charge to the public.
Original Sponsor	The Museum of New Mexico's Office of Statewide Programs and Education
Collaborators	Peñasco Independent Schools, the Museum of New Mexico, La Jicarita Enterprise Community, CESDP and Viewpoint Productions. The curriculum was developed and directed by <b>Judy Goldberg</b> , along with <b>Marcia Brenden</b> , <b>Sue Sturtevant</b> and <b>Consuelo Gonzales</b> .
Community Partners	See the website for a long list of Northern New Mexico partners.
Education Levels	PreK-19. Specific supports are available to make it more accessible at the lower grades.
Instructional Content	<ul style="list-style-type: none"> <li>• Topics: Language, culture, history</li> <li>• Purpose example: Supports strengthening parent and community partnerships</li> <li>• Aligned to standards and benchmarks</li> <li>• Allows for teacher creativity</li> <li>• Project Based Assessment</li> </ul>

Contributor: Jacobo Baca, Ph.D, Research Historian	
Affiliation	Land Grant Studies Program (LGSP), University of New Mexico
Curricula	LGSP has a collection of short cycle curricula and lesson plans designed to provide students with community-based learning and internship opportunities.
Sharing	Contact the LGSP for more information or support on land grant topics.
About	LGSP provides research, analysis, support services, and dissemination of information to community land grants ( <i>mercedes</i> ) and the broader community as a whole.
Contact	<b>Jacobo Baca, Ph.D</b> , Research Historian at New Mexico Land Grant Council (NMLGC), <a href="https://lgc.unm.edu/">https://lgc.unm.edu/</a> .
Collaborators	Most materials are developed by <b>Venessa Chavez</b> and <b>Vidal Gonzales</b> .
Education Levels	<ul style="list-style-type: none"> <li>• Community youth and adults. The program conducts youth events in conjunction with land grant meetings.</li> <li>• Youth coordinators have used the curriculum for their purposes.</li> </ul>
Instructional Content	Land grant history, including New Mexico customs, cultures and traditions.
Notes	<ul style="list-style-type: none"> <li>• LGSP provides support services to land grant communities statewide.</li> <li>• Research activities include the archiving, describing, analyzing, synthesizing, and mapping of New Mexico community land grants (<i>mercedes</i>).</li> <li>• Products and services include maps and GPS coordinate assessments, and community education and presentations on New Mexico land grants.</li> </ul>

Contributor: Eric Romero Ph.D	
Affiliation	Department of Languages and Culture, New Mexico Highlands University
Curricula Title(s) or Descriptions	New Mexico Land Grant, Acequia and Reservation Communities, Native American/Hispano Cultural Studies (NAHS 375). Other curricula include a variety of related course syllabi, presentation topics and lesson plans.
Education Levels	PreK-19, community children, adolescents, and adults, particularly for high school, undergraduate and graduate level courses and research activity.
Instructional Content	Many of the materials used in NMHU courses are directly relevant to K-19 land grant and acequias curricula.
Instructional Materials	Instructional materials and action-research projects are available to students doing NMHU coursework, particularly in the departments of history, anthropology, and political science. Materials are frequently used by students developing graduate degree theses.
Sharing	Dr. Romero offers to make many of his materials available, including syllabi and guidance on place-based research methodology. He would request a work meeting to determine which materials are most relevant for specific purposes.
Notes	Dr. Romero has a significant personal curriculum vitae related to land grants and acequia topics in education. Of particular note, much of his research involves the integration of environmental and agricultural science and social studies subjects with New Mexico history, language, and culture.

Priority Resource: New Mexico Acequia Association (NMAA)	
About	NMAA's mission is to protect water and local acequias, grow healthy food for families and communities, and to honor the regional cultural heritage.
Link	<a href="https://lasacequias.org/presentations-curriculum/">https://lasacequias.org/presentations-curriculum/</a>
Education Levels	Mostly oriented toward young children and youth.
School and Classroom Presentations	<ul style="list-style-type: none"> <li>• 'Acequia 101': The history, uses, and importance of New Mexico's acequia system</li> <li>• Acequias, the watershed and water cycle</li> <li>• Acequias, ecology, environment and climate change</li> <li>• Acequia music, poetry and art</li> <li>• Local farming and ranching</li> <li>• The magic and power of seeds, seed saving and protection of local seeds</li> <li>• 'Querencia': Our memories and stories of growing up on the acequias</li> <li>• Acequia mapping and GIS technology</li> <li>• Community memory and storytelling</li> <li>• Acequia policy, governance and leadership</li> </ul>
Instructional Materials	<ul style="list-style-type: none"> <li>• Acequia Treasure Hunt</li> <li>• Acequia Matching Word Activity</li> <li>• Acequia Storytelling/Interview Activity</li> <li>• Celebrating Acequia Culture Through Poetry – designed for middle/high school aged youth and up</li> <li>• <i>Mayordoma</i> Coloring &amp; Word Search Activity – courtesy of the <i>Manitos</i> Community Memory Project</li> <li>• Suggested Reading on New Mexico's Acequias</li> <li>• <i>Sembrando Semillas – Somos Gente de la Tierra</i> Coloring Page</li> <li>• Seeds Are Life – Matching Game &amp; Seed Storytelling Activity</li> <li>• <i>Plantitas, Bugs, Birds &amp; Animalitos</i> Who Call My Acequia Home</li> <li>• "Pertenezco a.." – the Acequia Ad-Lib Poetry Challenge</li> <li>• From the <i>Acequia to the Cocina</i> – Family &amp; Community Recipes</li> </ul>
Sharing	Free downloadable Acequia Education Print-Outs

Contributor: Miguel Santistevan, Educator, Taos Academy	
Affiliation	Taos Academy, Sol Feliz Farm
Curricula Descriptions	General acequia education. History, Ecology, Form/Function, Crops, Food Traditions, Permaculture
Education Levels	PreK-19, community children or adults.
Instructional Materials	Materials have been integrated with other curricula, such as YCC, <i>Sembrando Semillas</i> (NMAA), and in adjunct faculty courses on the subjects of Agriculture Ecology & Sustainable Food & Farming.
Sharing	Materials have been used over the last 20 years in multiple contexts: workshops, conferences, classroom, YCC, adjunct faculty. Contact Miguel for availability of materials and presentation.
Contact	See <a href="http://solfelizfarm.org/">http://solfelizfarm.org/</a>

Curriculum Exemplar: Rivers & Birds Environmental Education	
Affiliation	Rivers and Birds ( <i>Teaching the Next Generation of Earth Stewards</i> )
About	A registered 501 (c)(3) organization located in Taos, NM.
Curricula Descriptions	Contains numerous environmental education activities, such as: <ul style="list-style-type: none"> <li>• An award-winning 2004 documentary, <i>Nuestras Acequias</i></li> <li>• <i>The Watershed Learning Project</i></li> <li>• Various outdoor/expeditionary activities</li> <li>• Regenerative Agriculture materials</li> <li>• Storytelling podcasts, videos, and more</li> </ul>
Education Levels	K-12, but adults can also volunteer and become a kid again.
Sharing	<ul style="list-style-type: none"> <li>• <u>Free</u> environmental education educational activities and a storefront for related <i>merch</i>.</li> <li>• Check out their YouTube video collection at <a href="https://www.youtube.com/channel/UCysOIVwOmfzn86MWeqvFM2Q">https://www.youtube.com/channel/UCysOIVwOmfzn86MWeqvFM2Q</a></li> <li>• And a great acequia video at <a href="https://www.youtube.com/watch?v=wXO93riE7-w">https://www.youtube.com/watch?v=wXO93riE7-w</a></li> </ul>
Contact	<a href="http://www.riversandbirds.org/">http://www.riversandbirds.org/</a>



# LAND GRANT RESOURCES: ALGE CURRICULUM SUPPORT

Resource	Acequia and Land Grant Education (ALGE) Project
Partners	<ul style="list-style-type: none"> <li>Center for the Education and Study of Diverse Populations (CESDP)</li> <li>UNM Land Grant Students Program (LGSP)</li> <li>New Mexico Acequia Association (NMAA)</li> </ul>
Information Link	<a href="https://lasacequias.org/wp-content/uploads/2021/10/LGC-Acequia-and-Land-Grant-Education-Project-Presentation.pdf">https://lasacequias.org/wp-content/uploads/2021/10/LGC-Acequia-and-Land-Grant-Education-Project-Presentation.pdf</a>
Objectives of the NM ALGE Land Grant Committee (paraphrased)	<ul style="list-style-type: none"> <li>To advocate for experiential, authentic, land-based, place-based, community oriented, and culturally and linguistically responsive education in New Mexico.</li> <li>To promote the integration of the values above in public schools.</li> <li>To promote the development and integration of high-quality instructional materials and professional development opportunities.</li> </ul>
Contact	Multiple contacts for the individual project partners are available at the information link above.

Website Name	Welcome to the New Mexico Archives Online
Link	<a href="https://nmarchives.unm.edu">https://nmarchives.unm.edu</a>
Description	New Mexico Archives Online (NMAO) provides access to search aids for archival collections from 19 repositories across the state of New Mexico.
Notes	From there you can explore 509 search results on "land grants."

Website Name	New Mexico Land Grant Council (NMLGC)
Link	<a href="https://lqc.unm.edu">https://lqc.unm.edu</a>
Description	The New Mexico Land Grant Council's purpose is to establish a land grant support program to provide advice and assistance to land grants and to serve as a liaison between land grants and the federal, state and local government.
Notes	<p>GOALS:</p> <p>The goals of the <b>New Mexico Land Grant Council</b> are the following:</p> <ol style="list-style-type: none"> <li>1. Provide financial assistance to community land grants- mercedes through the <i>Land Grant Support Fund</i>.</li> <li>2. Provide direct technical assistance and training to Boards of Trustees.</li> <li>3. Serve as liaison between land grants- mercedes and other government entities.</li> <li>4. Community and economic development support and advocacy.</li> </ol>

Website Name	Resource Guide – Land Grants In New Mexico
Link	<a href="https://lawlibrary.nmcourts.gov/wp-content/uploads/sites/7/2021/10/Land-Grants_Resource-Guide.pdf">https://lawlibrary.nmcourts.gov/wp-content/uploads/sites/7/2021/10/Land-Grants_Resource-Guide.pdf</a>
Publisher	New Mexico Courts
Description	<p>Contains a wealth of information regarding Lang Grants in New Mexico, including the following:</p> <ul style="list-style-type: none"> <li>• How to adjudicate matters involving land grants statutes and legal history in NM.</li> <li>• Also contains many annotated references to other sources and databases on the subjects.</li> </ul>
Notes	Downloadable PDF from <a href="https://lawlibrary.nmcourts.gov/land-grants/">https://lawlibrary.nmcourts.gov/land-grants/</a>

Website Name	New Mexico Legislature Search
Link	<a href="https://www.nmlegis.gov">https://www.nmlegis.gov</a>
Publisher	New Mexico Legislature
Description	Contains 4,390 search results on the topic of land grants. Specializes in archiving policy and legislation, including for land grants.

Website Name	Eric.ED.gov search on "New Mexico" "land grants"
Link	<a href="https://eric.ed.gov/?q=" new+mexico"+"land+grants"="">https://eric.ed.gov/?q="New+Mexico"+"land+grants"</a>
Publisher	Education Resources Information Center, US Department of Education
Description	This site features research and write ups for U.S. education in general. NM. Oddly, there are only eight (8) search results for the topic "New Mexico" "land grants" (in quotes).

Website Name	UNM Chicana/o Studies Department
Link	<a href="https://search.unm.edu/search/?q=land+grants">https://search.unm.edu/search/?q=land+grants</a> <a href="https://chicanos.unm.edu">https://chicanos.unm.edu</a>
Publisher	The University of New Mexico
Description	Contains search links to dozens of land grant related webpages in the UNM system.

Website Name	Library of Congress, Congress.gov
Link	<a href="https://www.congress.gov">https://www.congress.gov</a>
Description	Search federal legislative records and archives.
Notes	For example, a current bill in congress would "require the Department of Agriculture (USDA) and the Department of the Interior to issue guidance related to certain community land grants in New Mexico made by Spain or Mexico to individuals, groups, and communities..."

Website Name	American Studies
Link	<a href="https://americanstudies.unm.edu">https://americanstudies.unm.edu</a>
Publisher	The University of New Mexico
Description	This site's search function is basically integrated in the overall university search page and database(s).

Website Name	Congressional Research Service
Link	<a href="https://crsreports.congress.gov">https://crsreports.congress.gov</a>
Publisher	Congress.gov
Description	A source for documents related to congressional debates, including for land and water issues.
Search Terms	"New Mexico" "Land Grants"

Website Name	Institute of American Indian Arts (IAIA)
Link	<a href="https://iaia.edu">https://iaia.edu</a>
Publisher	IAIA is a land-grant institution (not a community land grant); however, it addresses many of the same issues of land rights from an indigenous perspective.

Website Name	National Agricultural Library Digital Collections
Link	<a href="https://naldc.nal.usda.gov">https://naldc.nal.usda.gov</a>
Publisher	U.S. Department of Agriculture
Description	NALDC provides searchable access to full-text historical documents in the agricultural and food sciences.
Notes	While most of this site's contents related to land grants are specific to "land-grant institutions," the site does offer a wealth of information related to climate change and agricultural research.

Website Name	U.S. Bureau of Reclamation
Link	<a href="https://www.usbr.gov">https://www.usbr.gov</a>
Publisher	U.S. Bureau of Reclamation
Description	Addresses drought and conservation issues that could be useful to anyone managing community lands. <i>The public may apply to use Reclamation land, facilities, and waterbodies...</i>
Notes	Not related specifically to community land grants, but contains a good deal of resource information regarding the use and management of public lands.

Website Name	Rural Placemaking Innovation Challenge
Link	<a href="https://www.rd.usda.gov">https://www.rd.usda.gov</a>
Publisher	United States Department of Agriculture
Description	Provides resources, support, and training on rural development, and management of agriculture, food, and natural resources.
Notes	

Website Name	One of the Nation's Top STEM Schools
Link	<a href="https://nmt.edu/search.php?q=Land+grants">https://nmt.edu/search.php?q=Land+grants</a> <a href="https://nmt.edu">https://nmt.edu</a>
Publisher	New Mexico Tech
Description	Contains search links to many land grant related webpages in the New Mexico Tech system.

Website Name	New Mexico Public Education Department
Link	<a href="https://webnew.ped.state.nm.us">https://webnew.ped.state.nm.us</a>
Description	Search results for "land grants" come up short.

Website Name	New Mexico Higher Education Department
Link	<a href="https://hed.state.nm.us">https://hed.state.nm.us</a>
Description	Search results turned up 13 items, but none related to "land grants" as an instructional subject.

Government Document	Treaty of Guadalupe Hidalgo
Link	<a href="https://www.gao.gov/assets/gao-01-951.pdf">https://www.gao.gov/assets/gao-01-951.pdf</a>
Publisher	United States General Accounting Office (GAO)
Description	Definition and List of Community Land Grants in New Mexico, Sept. 2001
Sample Content	<p><b>The Honorable Tom Udall House of Representatives</b> From the end of the seventeenth century to the mid-nineteenth century, Spain (and later México) made land grants to individuals, towns, and groups to promote development in the frontier lands that now constitute the American Southwest.</p> <p>Our research identified a total of 295 grants made by Spain and México during this period. Appendix I contains a list of these grants and Appendix II contains a list of alternate grant identifiers.</p> <p>Approximately 52 Percent of All New Mexico Land Grants May Be Classified as Community Land Grants.</p>

Note. This is an excellent resource; however, regarding "The Cruzate Grants" (land grants to the Pueblo Indigenous Nations): Some scholars have countered that descriptions like the one in this document are incorrect, and that some original and very old descriptions may be fraudulent. See, for example:

Mathews-Lamb, Sandra K.. "Designing and Mischievous Individuals: The Cruzate Grants and the Office of the Surveyor General." *New Mexico Historical Review* 71, 4 (1996). <https://digitalrepository.unm.edu/nmhr/vol71/iss4/3>

# Acequia Resources: ALGE Curriculum Support

Resource	Reclaiming Our Past, Sustaining Our Future: Envisioning a New Mexico Land Grant and Acequia Curriculum. A White Paper.
Link	<a href="https://its.nmhu.edu/includes/onlinedocs/display.html?quicklink=7370">https://its.nmhu.edu/includes/onlinedocs/display.html?quicklink=7370</a>
Author	Elena V. Valdez, Ph.D. with collaborative support from the Acequia and Land Grant Education (ALGE) Project partners.
Sponsors and Supporters	ALGE partners and the Leadership Institute at the Santa Fe Indian School, and New Mexico Highlands University (NMHU), and others.
Description	<p>This is a 37-page elaborate research paper and contains sections on</p> <ul style="list-style-type: none"> <li>• Decolonial Frameworks and Future Possibilities</li> <li>• Land Grants and Acequias</li> <li>• Land and Water Literacy</li> <li>• Addenda including findings and recommendations by the <b>Center for Positive Practices</b> for organizing projected educational outcomes and instructional content. The findings are based on an in-depth synthesis from several focus groups conducted with numerous stakeholders and advisory group members.</li> <li>• Another addendum features paraphrased statements and quotes from a multi-generational mix of youth and subject-matter experts.</li> </ul>
Notes	The paper also contains a selective bibliography, a list of books and a section on acequia and land grant resources.

Blog Post	Acequias: a forgotten history
Link	<a href="https://kurlytlapoyawa.medium.com/acequias-a-forgotten-history-4fbf1801945d">https://kurlytlapoyawa.medium.com/acequias-a-forgotten-history-4fbf1801945d</a>
Publisher	Medium
Description	<i>Mesoamerican agriculture was a system of irrigation ditches and canals known as Apantli (or Apantle). The Apantli formed a network of irrigation ditches that were fed by the Huey Apantli ("great canal"), which was used to distribute water to individual fields, or milpas.</i>
Notes	Also mentions the ancient and "vast system of irrigation ditches" used by the Hohokam and Ancestral Puebloans of present day Arizona and New Mexico.
Reference Note	This post also references a <i>National Geographic</i> article: <i>Centuries-old Irrigation System Shows How to Manage Scarce Water at</i> <a href="https://www.nationalgeographic.com/environment/article/acequias">https://www.nationalgeographic.com/environment/article/acequias</a>

Website Name	Acequia Waters By Ernest Atencio
Link	<a href="https://www.taosacequias.org/acequias">https://www.taosacequias.org/acequias</a>
Publisher	Taos Acequias: Protecting Water Rights and Preserving Tradition
Description	A succinct, single-page overview of the Acequia tradition and meaning in Northern New Mexico.
Notes	Contains a helpful glossary of Spanish-English acequia terminology.

Website Name	Wikipedia: Land Grants in New Mexico
Link	<a href="https://en.wikipedia.org/wiki/Land_grants_in_New_Mexico">https://en.wikipedia.org/wiki/Land_grants_in_New_Mexico</a>
Publisher	Land grants in New Mexico
Description	A concise, sound-bite level overview of the history and current status of some select Spanish and Mexican land grants in New Mexico.

Resource	The New Mexico Acequia Commission
Link	<a href="https://www.newmexicoacequiacommission.com/">https://www.newmexicoacequiacommission.com/</a>
Description	The Acequia Commission is charged with the duties of serving as a facilitator for communication between local acequia organizations and the state and federal governments, and for reviewing plans or legislation that affect acequias and presenting their findings to the governor and the New Mexico Interstate Stream Commission.

Website Name	Office of the State Engineer
Link	<a href="https://www.ose.state.nm.us">https://www.ose.state.nm.us</a>
Description	Provides a wealth of information regarding water distribution, water use and conservation, droughts, water statutes and guidelines, real time water management, and more.
Notes	Also has a major database on water rights and purchase agreements and sections on their website featuring a list of acequia organizations including The Interstate Stream Commission which <i>has broad powers to investigate, protect, conserve, and develop New Mexico's waters including both interstate and intrastate stream systems.</i>
Link	<a href="https://www.ose.state.nm.us/NMAC/organizations.php">https://www.ose.state.nm.us/NMAC/organizations.php</a>
Contact	<ul style="list-style-type: none"> <li>• Main Office 130 South Capitol Street Concha Ortiz y Pino Building, Santa Fe, NM. 87504</li> <li>• Phone: (505) 827-6091 Fax: (505) 827-3806</li> <li>• Public Information Office (Media Inquiries): (505) 383-4070</li> </ul>

Website Name	New Mexico Land Grant Council (NMLGC)
Link	<a href="https://lgc.unm.edu">https://lgc.unm.edu</a>
Publisher	New Mexico Land Grant Council (NMLGC)
Description	The Council provides advice and assistance to land grant recipients and serves as a liaison with federal, state and local governments.

Website Name	Acequia and Community Ditch Fund (NMDA)
Publisher	New Mexico Department of Agriculture
Link	<a href="https://www.nmda.nmsu.edu/nmda-homepage/divisions/apr/acequia-and-community-ditch-fund/">https://www.nmda.nmsu.edu/nmda-homepage/divisions/apr/acequia-and-community-ditch-fund/</a>
Description	Contains a description and link to The <a href="#">Acequia and Community Ditch Fund Act</a> , which provides financial assistance to acequia systems.

Website Name	Yes! Magazine
Article Title	Ancient Traditions Keep Desert Waters Flowing
Link	<a href="https://www.yesmagazine.org/issue/water-solutions/2010/05/13/ancient-traditions-keep-desert-waters-flowing">https://www.yesmagazine.org/issue/water-solutions/2010/05/13/ancient-traditions-keep-desert-waters-flowing</a>
Publisher	YesMagazine.org
Description	<ul style="list-style-type: none"> <li>• Reviews acequia history and importance of communal relationships and locally grown food in the modern world.</li> <li>• Emphasizes relationships with everything as a way of life.</li> </ul>

Website Name	New Mexico Nomad
Title	<i>Lifestyle: Acequias</i>
Link	<a href="https://newmexiconomad.com/acequias/">https://newmexiconomad.com/acequias/</a>
Description	A widely read touristy website with commercial sponsors.
Their Description	<i>New Mexico Nomad is an online platform dedicated to celebrating the beauty, culture, heritage, and history of the Land of Enchantment.</i>
Notes	This webpage provides a brief, exquisitely written overview of the New Mexico acequia nexus and includes some beautiful photographs of acequias. A printout of this page would be great for community discussion, but first get permission from the publisher.
Sharing	<p>Contact the site directly for specific uses or copying that goes beyond simple fair use purposes in education.</p> <ul style="list-style-type: none"> <li>• See this <i>Edutopia</i> article, <i>A Teacher's Guide to Copyright and Fair Use</i>, for a good description of "fair use": <a href="https://www.edutopia.org/article/teachers-guide-copyright-and-fair-use">https://www.edutopia.org/article/teachers-guide-copyright-and-fair-use</a></li> <li>• For a stodgy federal government official description of fair use, see <a href="https://www.copyright.gov/fair-use/more-info.html">https://www.copyright.gov/fair-use/more-info.html</a></li> </ul>

Website	Sangre de Cristo Acequia Association - Colorado
Link	<a href="https://www.coloradoacequias.org/">https://www.coloradoacequias.org/</a>
Publisher	Sangre de Cristo Acequia Association
Description	The Sangre de Cristo Acequia Association (SdCAA) is a 501(c)3 organization representing over 73 acequias, which in turn support approximately 300 families. Their office is located in the town of San Luis, Colorado.
Notes: includes many nicely designed lesson plans	<ul style="list-style-type: none"> <li>• <a href="#">Curriculum PPT for highschool.pptx</a></li> <li>• <a href="#">Land Grant Lessons 3-5 Final.pdf</a></li> <li>• <a href="#">Land Grant Lessons 6-8 Final.pdf</a></li> <li>• <a href="#">Land Grant Lessons High School Final.pdf</a></li> <li>• <a href="#">Land Grant Lessons K-2 Final.pdf</a></li> <li>• <a href="#">The Acequia Community - Colorado's First Settlements Grade 3-5 Visual Library Presentation Files 7.31.21.pptx</a></li> <li>• <a href="#">The Acequia Community - Colorado's First Settlements Grade 6-8 Visual Library Presentation Files 8.14.21.pptx</a></li> <li>• <a href="#">The Acequia Community - Colorado's First Settlements Grade K-2 Visual Library Presentation Files 7.31.21.pptx</a></li> </ul>
Video	<ul style="list-style-type: none"> <li>• Excellent short video on Vimeo of a SLV girl describing her acequia</li> </ul>
Handbook	<ul style="list-style-type: none"> <li>• The Colorado Acequia Handbook</li> </ul>
Document	<b>The History of the Acequia</b>
Publisher	United States Department of Agriculture
Link	<a href="https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_067306.pdf">https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_067306.pdf</a>
Description	A 2-page write-up based on an interview with <b>Patrick Jaramillo</b> , formerly of the New Mexico Acequia Association, on the history and function of acequias in New Mexico.
Notes	Includes interesting facts and worth the 5-minute read.

Website Name	The Acequia Institute - Colorado
Link	<a href="http://www.acequiainstitute.org/index.html">http://www.acequiainstitute.org/index.html</a>
Publisher	The Acequia Institute
Description	The Acequia Institute is located on Caputa Ute homeland territory at the <i>Almuniyah de las Dos Acequias</i> , a 181-acre acequia/riparian long-lot farm in the bottom lands of Viejo San Acacio, Colorado.
Notes	TAI offers educational services focused on acequia agroecology, biodynamics, and indigenous permaculture.

Website Name	Acequia Assistance Project - Colorado
Link	<a href="https://www.getches-wilkinsoncenter.cu.law/curriculum/curriculum-and-student-info/acequia-assistance-project/">https://www.getches-wilkinsoncenter.cu.law/curriculum/curriculum-and-student-info/acequia-assistance-project/</a>
Publisher	Getches-Wilkinson Center — For natural resources, energy, and the environment.
Description	The Acequia Project is a joint effort by the Getches-Wilkinson Center, Colorado Open Lands, and the Sangre de Cristo Acequia Association to provide low or no-cost legal assistance and educational materials to Colorado's acequia communities.
Notes	Colorado Law is known for its renowned faculty and curriculum addressing environmental, energy, and natural resources law