Approaches to Teaching Communication Skills: Improving Students’ Skills One Activity at a Time

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Introduction

• Teaching scientific concepts is the focus of high school agriculture and science teachers’ time, effort, and ability, but communication skills are the foundation that will lead to change (Morgan, 2012).

• Teaching communication skills can be difficult as these skills require behavior change and, thus, require unique approaches different than teaching basic knowledge and understanding.

• Often, agriculture and science teachers do not have the time, nor the expertise, to prepare instruction to deliver soft skill training to students.
Purpose

• To understand how award-winning science and agriculture teachers incorporate communication skills into content.

• To develop a resource consisting of techniques, approaches and tools that teachers can use to incorporate communication skills into their content.
Method

Research Design

• This study aligns with applied research in nature as it aimed to solve a specific problem of a group (Patton, 2002).

• Narrowed to a **transcendental phenomenological inquiry** as it “focused less on the interpretations of the researchers and more on a description of the experiences of participants” (Creswell & Poth, 2018, p. 78).
Method

Population/Sample

- A purposive sample was selected “to permit inquiry into and understanding of a phenomenon in depth” (Patton, 2002, p. 46).

- Creswell and Poth (2018) said in order to adequately explore a phenomenon, a heterogeneous group ranging in size from 3 to 4 individuals to 10 to 15 individuals who have all experienced the phenomenon should be involved.
Method

Procedures

• Established a mutually-convenient time to hold semi-structured one-on-one interviews with each participant.

• The information gathered was reduced into noteworthy statements or quotes, which were categorized into themes (Creswell & Poth, 2018).

• First used open or axial coding (Corbin & Strauss, 2008).

• Implemented a comparative analysis (Corbin & Strauss, 2008).

• Themes were evaluated by two criteria: internal homogeneity and external homogeneity (Patton, 2002).

• Textural descriptions that explain what the participants experienced, and structural descriptions which explain how they experienced it (Creswell & Poth, 2018).
Theme 1 – Using exploration to enable communication

**What**

Students are required to explore or research a phenomenon and become “the expert” to then teach others.

**How**

- Oral and written components
- Identify reliable sources
- Learn not to trust something at face value
- Establish credibility in their work
- Convey themselves as reliable sources of information
- Make claims based on evidence
- Expository writing (i.e. claim, evidence, reason)
- Case studies
Theme 2 – Using marketing to explain effective communication

**What**

Students use marketing techniques to design a product or sell their idea

**How**

- Oral and written components
- Understand their target audience and its needs
- Learn to frame a message
- Be able to deliver a message
- Create a sales pitch
- Design an object using 3D printer
- Analyze TV commercials or online advertisements
- Develop a commercial
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<th><strong>What</strong></th>
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| Students are required to clarify, explain and decode information to make informed decisions | • Oral and written components  
• Problem-solving  
• Logical fallacies accompanied with myths  
• Practice turning goals into actionable steps  
• Reflection  
• Inquiry-based activities  
• Explain and interpret controversial topics |
Theme 4 – Critiquing approaches

**What**

Students engage in critiquing their peers and/or teacher and recommend changes

**How**

- Oral and written components
- Demonstrate negatives in presenting
- Offer feedback
- 2:1 ratio
- Address specific areas (i.e. body language, hand position and gestures, eye contact, voice, volume, use of “ums”)
- Make revisions
What

Students engage in activities to understand the fundamentals of written and oral communication and their effectiveness

How

• Discuss word choice
• Practice shortening sentences
• Readability of directions and how to improve them
• Eliminate “fluff”
• Context clues to interpret word meanings
Theme 6 – Active listening guidance

What

Students learn to be active audience members and to listen effectively to formulate relevant questions

How

• In-depth discussions
• Guest speakers
• Open-ended versus close-ended questions
• Share someone else’s opinion accurately
• Practice interviewing
• Write pertinent questions and evaluate
Theme 7 – Visual Literacy

*What*

Students learn to interpret and gain meaning from images and to use visuals effectively in their work

*How*

- Oral and written components
- Presentation with only pictures
- Problem-solving with graphs and pictorial representations
- Respond to images using low-inference prompts
- See, think, wonder approach
- Create visual, 3D representation of scientific phenomena
## Theme 8 – Role-play

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| Students advocate for the perspective of another person and practice non-verbal communication | • Focus on non-verbal cues to guess a person’s role  
• Opposing views partake in debates  
• Practice respecting the views and opinions of others  
• Make connections and shows relevance to daily lives |
Theme 9 – Online interaction

**What**

Students understand how online communication differs from face-to-face interaction, and learn how to navigate the online interface and social media.

**How**

- Improve poorly written communication pieces received by teacher (i.e. emails)
- Use examples of what is and what is not appropriate to share on social media
- Discuss copyright material and how to find usage rights
- Learn that emotion can be lost in writing
- Understand permanence of online communication
Theme 10 – Interpersonal training

**What**

Students build relational abilities and learn to respect the opinions of others without being critical

**How**

- Controversial topics
- Teach personal story behind scientific idea through a cultural lens to create emotional bridge for students to relate
- Logic is not more important than emotion
- Practice interviewing
- Break down barriers and develop relationships
Conclusions

• All award-winning teachers emphasized that they did not have a communications unit, but that communication skills were incorporated into content

• All approaches documented were implemented in the context of science

• Resulting article will serve as a resource for science and agriculture teachers and add to the body of literature regarding teaching communication skills.
References


