The journey of a developing auto mechanic and TikTok author helps to uncover features of disciplinary literacy

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The thought-provoking tale of a college student developing as an auto mechanic may inspire individuals to consider the unique literacy practices inherent within specific disciplines. Riley Allen tells two stories (Allen, 2025). First, the audience is presented with a description of Riley's early introduction into auto mechanics as he attempts to repair his mother's car. Riley continues to describe his journey as a developing auto mechanic by discussing how he carried a 560 pound engine 20 feet at a salvage yard in order to try to repair his grandfather's car. TikTok fame finds Riley as a result of his actions at the salvage yard. While interweaving both stories, Riley uses his video text to describe how he interacts with individuals familiar and unfamiliar with the languages of auto mechanics, illustrating how language negotiations informed his emerging identity as an auto mechanic. He demonstrates the role that mentors play in helping individuals navigate the languages and texts that are inherent to the world of auto mechanics. Riley also deconstructs the types of oral and written texts that an auto mechanic might encounter,

as well as the purposes for these texts. Riley's video text proves that literacy surrounding mathematics and science is focused on achieving specific goals. The following commentary draws out the disciplinary literacy (or discipline specific communication) that arose as Riley pursued his desired outcomes. By analyzing how Riley develops the literacy practices of auto mechanics, readers may be inspired to achieve literacy in new ways and recognize the literacies that already exist in their own lives.

Language Use Outside, Inside, and Between Auto Mechanic Communities

Within his video text, Riley presents many examples of the evolution of his use of language as he develops an identity as an auto mechanic. As Riley begins to talk about the inspiration for his desire to develop as an auto mechanic, he describes the actions of his mom's old car as it starts to deteriorate. He remembers that she stated about her car, "It was shaking itself to pieces." This language example demonstrates how many drivers outside of the world of auto mechanics sometimes try to use their own knowledge of language to describe for auto mechanics the actions and noises of a car. Perhaps some of you reading this article may recall a time when you took your car to an auto mechanic and attempted to describe what was happening in the car. Auto mechanics often have to negotiate language with customers who are searching to use social language to describe what is being observed about a car. The auto mechanics must then use their understanding of these language exchanges in order to inform problem solving related to the cars they are trying to fix. Riley astutely gives us an example as to what that language sometimes looks like during these exchanges.

As Riley begins his development as an auto mechanic, he describes his attempts to secure mentors. Croce & McCormick (2020) remind us that mentors may help individuals navigate the discourses used outside, inside, and between individuals in multiple disciplines. Riley's video text highlights the reality that often students must find their own mentors:

"I did not know how to work on cars yet, so I went and found my friend who I went to high school with down the road. He liked working on cars. We have another family friend in a different neighborhood, but he had all the tools that we would need. He had the experience. He used to work in a professional mechanic's shop. So with my friend who was also enthusiastic about cars and kind of my mentor, my first mentor who knew a lot about working on cars, I kind of felt that I had the proper skill set and support to get it done."

Riley communicates a high comfort level with the two individuals that he selected as mentors. The prior social relations between these individuals may mean that they share ways of using language already before Riley starts his journey into the world of auto mechanics. Being able to draw on social ways of communicating may help provide a bridge towards the new ways of communicating that Riley is seeking (auto mechanics). Individuals who do not have access to mentors already in their lives now have the option to use Google, YouTube, and TikTok to seek out auto mechanic mentors who have put their expertise on social media. Across these social mediums, individuals can observe professional auto mechanics communicate problem solving while working with cars.

Within his video text, Riley uses his evolving understandings of language to describe the problem solving necessary to fix his mom's car. He relates, "What turned out to be the problem was the control arm on the Infiniti had gone out and so when you are driving it, it felt like it was shaking itself to pieces." Within these statements, Riley demonstrates how his evolution as an auto mechanic now enables him to interweave the language used by auto mechanics ("...the control arm on the Infiniti had gone out") with the social language used by his mom ("It was shaking itself to pieces"). Together these two phrases positioned side by side demonstrate how Riley's literacy has expanded to include the merge of two interlocking spheres of influence.

Multiple disciplines use language to engage with others in order to solve problems (Ortlieb et al., 2023). Within the narration in his video text, Riley indicates, "It taught me a lot about problem solving, and a lot about project management, a lot about project research, a lot about critical thinking." In order to diagnose the problem with his mother's car, Riley would have had to learn about assessment, weighing options, examining the viability of different options, and selecting solutions. These steps require both science and mathematics practices that are unique to auto mechanics. The assessment option would require checking for factors such as noises in the car, shaky steering, unstable breaking, or steering that veers to one side. If any of these symptoms are present, an auto mechanic can consider the options and look for cracks or damage in the control arm, worn down ball joints, or damaged bushings within the control arm. An auto mechanic might also consider the breaks or the tires to be the source of the problem. Once observations are made, the auto mechanic must select a solution. If the

solution selected is to address the control arm, the auto mechanic must decide if the bushing needs to be replaced or a ball joint needs to be replaced (or both). Mentors may each have a different system for evaluating, diagnosing, and solving car issues. The different approach to these processes may be communicated to mentees through actions or dialogue. Riley's discussion of his evolution as an auto mechanic as he worked on his mom's car highlights for the audience the power of mentorship and acquiring discipline specific language.

While recalling how he inherited a car from his grandfather that needed repair, Riley provides extensive examples that demonstrate the uniqueness of the language of auto mechanics. When discussing the type of car given to Riley as he moved to college, Riley notes that it was "...a 1988 chevy C1500. It's a quarter ton pick-up wheel drive." Later Riley proposes. "It's not the best car for snow." When watching the sections of Riley's video text that presented this quote, I had to rewind the video text multiple times to make sure that I had correctly written down the make and model of the car. I have not had many experiences speaking with auto mechanics or car salesmen, so I do not use the language of car makes and models. I can't even identify many of the types of cars that I see on the road when I drive. In addition, I do not have the ability to speak about the functionality of each type of car. In contrast, Riley has now evolved in his identity as an auto mechanic so that he is able to describe the make and model of a car and use language to analyze the functions of a car (which cars are best for driving in the snow.) Successful auto mechanics who work in repair shops are able to communicate their knowledge base either to customers or other individuals who then work with

customers. This is a type of literacy that is specific to the discipline of auto mechanics. Communication occurs both inside communities of auto mechanics and between those inside the auto mechanic community and those outside the auto mechanic community. When individuals begin to communicate in these ways, they are said to be developing disciplinary literacy. Disciplinary literacy refers to the specialized literacy practices within different disciplines (Moje, 2015; Shanahan et al., 2011). Riley's video text helps audiences understand a bit more about the unique ways that auto mechanics read, write, and speak amongst themselves and to others.

Riley shows us the difficulties of attempting to navigate discipline specific language on his own. As Riley traveled from Arizona to 30 miles outside of his college town in Idaho, his car experienced problems. At this point in his evolution as an auto mechanic, Riley is now able to use discipline specific language to list multiple options for what may be wrong with the car. Yet, at the same time he also states, "I knew nothing. I was like….well, I had a truck that worked. I no longer had a truck that worked anymore." As individuals make early attempts to navigate new disciplines, they exist in between full confidence with language and lack of confidence with language. Riley's move to a new state separated him from his previous auto mechanic mentors. His evolution as an auto mechanic stalls until he is able to find a way to seek out new mentors to support his language use and critical thinking.

Riley describes the importance of bringing together multiple individuals to work together to pose problems in auto mechanics. One of the goals of an auto

mechanic is to address the idea that something works until it doesn't. Individuals come together to figure out why the car stopped working in certain ways. A customer can present information about events in the past that may inform the problem. In Riley's case, he had to decide how to move forward on his own when reflecting on his nonfunctioning grandfather's car in Idaho. His grandfather, the previous owner of the car, was not able to provide Riley with more context that could inform future problem solving. As Riley describes it, his grandfather stated, "I have no idea what you did." Riley did not have the option to pay a professional auto mechanic to serve as a model. By discussing these factors, Riley reminds the audience how much mentors are influencing his development at this stage of his journey as an auto mechanic.

Using Language to Seek Auto Mechanic Mentors

As Riley addresses his attempts to determine how to fix his grandfather's car, he highlights the importance of examining multiple texts within auto mechanics. Riley points out a specific note that shapes his decision making as he pondered what to do with his grandfather's nonfunctioning car. A note was placed on his friend's car by an unknown author (later identified as James). The purpose of the note was to present an offer to repair Riley's friend's car. Riley responded to this handwritten note with a text. Since Riley concealed his identity during his first few text communications with the note's author (James), the author of the note begins mentoring Riley without realizing who Riley was. Riley is not the owner of the car upon which the note was left. Despite this uncertain start to the mentoring relationship, James begins to guide Riley's problem solving as they

communicate through text. This process leads James to conclude that Riley is having problems with his car's engines. These exchanges demonstrate how engagement with different text types may encourage problem solving within auto mechanics.

Riley found a mentor who would help him navigate multiple types of texts within the discipline of auto mechanics. James helped develop Riley's abilities to search social media in order to purchase an engine. After searching across the internet, they found a deal on Instagram. A salvage yard presented a deal called an "I carry sale". Whatever you could pick up and carry 20 feet you could buy for $69.99. As Riley learned where to look for ads and the types of companies that could help him, he had to begin to navigate the languages used by different venues in their advertisements.

As Riley's journey continued, he began to use different types of texts in ways that were new to him. He transacted with auto mechanic specific advertisements that were new forms of texts to him. He had to compare and contrast what he could afford and what was possible within the limits of physics. The engine could weigh anywhere between 350 and 560 pounds. He had to determine if the new engine would fit in the car, how could he drag a 560 pound engine 20 feet, and how he could get the new engine into the car. After Riley found solutions to all of these questions, he decided to post to TikTok parts of his actions as an evolving auto mechanic. Specifically, he wanted to highlight for an audience how he figured out how to drag a 560 pound engine 20 feet. Five million, one hundred thousand people watched this video text. One might imagine that viewers of the TikTok video might be comprised of individuals both familiar and

unfamiliar with problem solving within auto mechanics. Riley had come full circle by becoming a type of mentor himself to others on TikTok who wanted to see how he solved the problem of how to carry a 560 pound engine 20 feet. TikTok ended up having to pay him due to the large number of views to his video. This brought many new types of texts and communications into Riley's life as he found himself receiving communications about payment. In addition, sponsors reached out to ask Riley to endorse their products (offers that he declined given his still evolving identity as an auto mechanic). The actions of the sponsors also brought new types of texts into Riley's life. Riley's experiences demonstrate how problem solving may be accomplished through engagement with different types of auto mechanics texts.

Conclusions

As Allen (2025) details how he navigated his evolving identity as an auto mechanic, he reveals some of the different literacy practices within the discipline of auto mechanics. He increases his understanding of the unique ways of communicating in auto mechanics. Individuals hoping to become auto mechanics may find connections to new ways of communicating and understanding problem solving by watching Riley's video text. Educators may also gain insight into how to guide novices through the process of developing literacy within auto mechanics.

It is important to note that the examples in Riley's video text are specific to the context that he presented. Other developing auto mechanics can further add to the discussion of auto mechanic literacy. For example, future understandings may come from

investigating auto mechanics working in businesses or attending schools internationally. Investigating multiple contexts may help further define the literacy practices of auto mechanics.

Riley's video text may provide students in educational environments with ideas for new types of texts that represent mathematical and scientific thinking in the world. Specifically, when considering how to support students within STEM fields, attention must be paid to engagements that occur inside of and outside of auto mechanics spheres of influence. Educational environments such as trade schools, community colleges, and businesses may consider how individuals might be presented with mentors to facilitate language negotiations surrounding auto mechanics. Educational environments might also consider how oral and written auto mechanic texts are evolving. The mathematics and science are sometimes discussed in very broad ways by educators; however, individuals navigate mathematics and science in pursuit of very specific goals. When educators, businesses, and families consider how to support students, they must investigate the unique ways that communication occurs in different fields.

Questions to Consider

- Is the development of auto mechanic literacy only possible through access to mentors?
- Do mentors within the discipline of auto mechanics have to be able to navigate both social language and discipline specific language when working with apprentices?
- What are the range of text types that inform auto mechanics across continents?

Future Directions for Investigation

- Would the literacy practices of other developing auto mechanics across the world be similar or different to the literacy practices presented in the Riley video text?
- Can teachers use texts centered around auto mechanics in order to support students as they develop mathematical and science literacies?

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