

*Noor*

Professional Paper Writing Example

by

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## Introduction

I began this thesis when I was eight years old while standing inside the small-town library where I lived. It was a hot Louisiana day and the summer reading class had just ended. The library was filled with hundreds of books that did not interest me, but my mom insisted I check out something to complete my summertime challenge sheet. A small paperback children's book perched on top of the shelf, along with the other new items the library had just received, caught my attention. A crude drawing of a boy decorated the cover; it did not look like the normal professional drawings I had seen in the other books. It appeared along the lines of something a young child would have drawn.

An eight-year-old boy wrote the book and it had only recently been published. It was his autobiography about his fight with cancer illustrated by his very own hands and crayons. Every page was a raw canvas made with meticulous care and detail, as much as any child could manage. He spoke of how he had been diagnosed, talked about how it had changed his life, he explained how it had affected him and his family emotionally, and spoke of the treatments and procedures he had. He finally told the readers that he beat cancer, and just because someone was diagnosed with it did not mean they would die. He decided to write his own book because there had not been one to read during his battle with cancer. He had wanted to give other children a source of hope that he himself had not had.

I can recall neither the author nor the title of the book, but I clearly recall how the book impacted me. I had thought about my younger cousin who had passed away from cancer three years prior to me finding that book. I wondered then, as I do now: would it have helped him during his long battle?

I created my first illustrated story that day, spurred on by the desire to help create a book that would give other children hope when they needed it the most. My thesis project *Noor* has stemmed from the same desire I had those years ago. Children's literature and media can be a powerful tool to inspire and teach. It can help children feel hopeful, understanding they are not alone in their feelings and allow them to view the world with a perspective not their own and create empathy.

*Noor* is an illustrated storybook that features characters that have chronic health conditions. It will help create more diversity within children's literature. *Noor* features aspects of augmented reality (AR) to allow children to connect with the characters on a deeper level. The majority of children's literature does not feature AR, and those that do tend to be educational books. *Noor* will be one of the first children fictional illustrated storybooks with augmented reality to enter the literary world.

My goal as an artist is to make work that gives value back to those who have health, skin, or mental conditions. Just because someone is not healthy, does not mean they are an invalid or have nothing to contribute to the world around them. The world benefits from diversity, but much of children's literature does not reflect that. *Noor* was created to demonstrate that individuals with chronic conditions can flourish despite having health issues.

### **Chronic Illnesses**

The Centers for Disease Control and Prevention (CDC) defines chronic illnesses as “conditions that last [one] year or more and require ongoing medical attention or limit activities of daily living or both” (About Chronic Disease). Six in ten adults in the United States have a chronic illness and four in every ten adults in America have two or more (Chronic Disease in

America). These numbers project over 40 % of the population in the United States, millions of people, have a long-lasting health condition

An estimated 15% to 18% of children in the United States have a chronic health condition (University of Michigan Health System). Thus, out of the 73 million children who live within the United States of America, it is estimated that between 10-13 million children have lasting health issues. Many of these medical ailments can lead to a limitation of physical activities and social lives due to autoimmune disorders or from suppressed immune systems.

### **Ableism**

Ableism is defined as, “The practices and dominant attitudes in society that devalue and limit the potential of persons with disabilities. A set of practices and beliefs that assign inferior value (worth) to people who have developmental, emotional, physical, or psychiatric disabilities” (What is Ableism). Access Living, a leading force in the disability community, adds to this definition by saying that ableism is:

The discrimination of and social prejudice against people with disabilities based on the belief that typical abilities are superior. At its heart, ableism is rooted in the assumption that disabled people require ‘fixing’ and defines people by their disability. Like racism and sexism, ableism classifies entire groups of people as ‘less than’, and includes harmful stereotypes, misconceptions, and generalizations of people with disabilities (Ableism 101).

Ableism comes in many forms. A few examples of it are: segregation of adults and children with disabilities, failing to have accessibility in buildings like elevators or ramps, the lack of brail in public spaces, using disabilities as a punchline or mocking people with disabilities, the use of restraint or seclusion to control children with disabilities, and not being complicit with disability right laws. Ableism can also occur in everyday speech as well. Micro-aggressions such as saying things such as: “I don’t think of you as disabled”, “They must be

faking because they were fine yesterday”, or “they are crazy” are also types of ableism. While this kind of ableism is often unintentional, it can be damaging and degrading to those who suffer from those health conditions.

Even though there are millions of individuals in the United States who have health conditions, American society is not designed or built with people with chronic conditions in mind. Everyday activities like identifying a red light from a green light, going upstairs, or accessing public transportation might appear to be easy to do for healthy individuals, but for others it might be an impossible task. This makes everyday living and meeting societal norms difficult to those with disabilities and makes America an ableist society. An ableist society is, “one that treats non-disabled individuals as the standard of ‘normal living’, which results in public and private places and services, education, and social work that are built to serve ‘standard’ people, thereby inherently excluding those with various disabilities” (What is Ableism).

The Dignity & Respect Campaign suggests that individuals take the time to learn more about people who live with disabilities and health conditions in order to combat and fight ableism. Children can be introduced and learn about individuals with different health issues through media representation. However, characters with health conditions are highly underrepresented within children’s media. Lemish and Johnson conducted a study in 2019 where they inspected North American children’s television content designed for kids up to the age of 12. This included 476 programs with 1,654 main characters, on channels such as Disney Jr., Disney Channel, Cartoon Network, Nick Jr., Nickelodeon, PBS kids, and Sprout-Universal Kids. They found that only “one percent of the characters had any sign of physical disability or chronic disease, while 20% of the population lives with a disability” (Levinson). *Noor* can act as an

avenue for children to learn about individuals who have health conditions. Therefore, helping in the fight against ableism.

### **Need for chronic diversity within children's literature**

When I was three years old my two-year old cousin was diagnosed with Rhabdomyosarcoma, a type of cancer that affects muscle tissue. His next two years were full of surgeries, IVs, long stays at St. Jude's Research Center, and chemotherapy. I watched as my cousin fought the cancer and saw him longing to do what our cousins and I could. Things as simple as petting a dog or running across the yard were beyond his limitations many days. I witnessed him realizing how he was not like the rest of us. As his cancer grew, so did his frustration. He began to become self-conscious. From the IVs that were in his arms to his tiny bald head, he felt shamefully different.

While he was not the only child in the world battling cancer, he was the only one in *his* immediate world. He began to feel ostracized, despite all of us catering to his needs and going out of our way to make him feel loved and included. Even as cherished as he was, he felt alone, because there was no person he could relate to. At the age of four years old, he said he felt like a freak.

My cousin was not the only child to ever feel out of place or strange compared to those around them because of their health. "Children with chronic illnesses will feel "different" than other children...Children need to feel like they belong" (University of Michigan Health System). There needs to be more representation to help children with health issues to feel like they are represented in America's society. Creating characters, they can relate to through literature and other forms of media and entertainment is one way to achieve that. Creating more diverse

characters who have health conditions could allow for children to identify and gain a sense of companionship and community. Dr. Rudine Sims Bishop said:

Books are sometimes windows, offering views of worlds that may be real or imagined, familiar or strange. These windows are also sliding glass doors, and readers have only to walk through in imagination to become part of whatever world has been created and recreated by the author. When lighting conditions are just right, however, a window can also be a mirror. Literature transforms human experience and reflects it back to us, and in that reflection we can see our own lives and experiences as part of the larger human experience. Reading, then, becomes a means of self-affirmation, and readers often seek their mirrors in books (National Council of Teachers of English).

Having more diversity and creating more protagonists who have various health conditions will allow for more children to experience the book as a mirror. Children's book illustrator David Huyck points out, "The positive 'mirror' experience is exactly why representation matters. Actually seeing someone who looks like you doing something you never thought of, it can give you the idea that 'this could be me someday'" (Stechyson, Natalie).

*Noor* was made for the purpose of creating more representation for children who have chronic illnesses, however, it will also allow healthy children to understand what some of their peers may be facing. Studies have shown that children who have health conditions are at a higher risk for bullying. Martin Pinquart did a study entitled *Systematic Review: Bullying Involvement of Children With and Without Chronic Physical Illness and/or Physical/Sensory Disability— a Meta – Analytic Comparison With Healthy Nondisabled Peers*. He addresses why this might be so, "It has been suggested that children and adolescents with chronic health conditions have an increased risk of being bullied (Faith et al., 2015). First, a child who is physically different is an easy target for victimization (Dawkins, 1996). Symptoms of the disease or treatment regimens may cause peers to perceive them as being different" (Martin Pinquart).

He provides examples of how a child with a facial disfigurement might be ridiculed because the child does not meet the standards of beauty within that social group. Pinquart also

states that some children with chronic illnesses may be perceived as physically weaker and therefore a target. Cindy Clark in her book *In Sickness and In Play* suggests another reason,

Adding to the child's predicament are the distancing social reactions of others in response to the child's symptoms and treatment. Some playmates flinch upon witnessing diabetic blood tests. Coaches and gym teachers may bench a child using an inhaler to treat exercise-induced asthma. Squeamish relatives of children with diabetes are known to impulsively walk away during injections. Such can "spoil identity," as Goffman so well explained (Clark).

As a result of bullying, many children become self-conscious about their health condition and the processes they must go through in order to maintain their health. Cindy Clark notes,

As young as age seven or eight, some children in our study had already grown embarrassed to use an asthma inhaler in front of classmates. In social interaction, children constructed a sense of self threaded with exceptionality—ironically, a stigma deriving partly from the very treatment procedures meant to restore life to as normal as possible a condition. Children must cope, then, with social and taboo like consequences to their sense of self, derived from treatment as well as from the physical events of illness (Clark).

I suffered from asthma throughout my childhood. During the late 1990s and early 2000s, young children were limited to the media and literature that could be found in local stores and libraries. My rural Southern hometown did not offer many options for books with diverse characters. There were no cool role models for me to look to within children's literature. The few media and books available to me which featured asthmatic characters, portrayed them as whiny, overly nerdy, and terrified of everything around them. They were not someone I could look up to, and it only took one occasion of my peers comparing me to that asthmatic stereotype to make me feel ashamed to admit I actually was one. The negative portrayal of asthmatic individuals in the literature and media of the time, directly resulted in how other kids saw me for having asthma. There were many soccer practices where I would carefully hide any wheezing I did or sit and suffer through an asthma attack just so I would not have to use my inhaler in front of my peers.



Psychology in Action in their article *Why Diversity in Children's Media is So Important* states:

Research shows that a lack of representation in media can lead to negative psychological outcomes for those with identities that are underrepresented or negatively portrayed...If young people are watching negative depictions, or are not seeing themselves reflected at all, in their favorite shows, they may begin to feel invisible or unimportant. They lose the opportunity to see people with their identities and features being portrayed in a positive way...Fortunately, identification with representative characters can lead to positive outcomes. Research shows that identifying with popular characters with the same identities in mainstream media leads to higher self-esteem on several dimensions. Such results underscore the importance of realistic, diverse, and inclusive representation in children's media (Levinson).

*Noor* can act as a window for children who do not have chronic illnesses as well as help those who do have health conditions. Children can read this book and peek into a world outside of their own and gain an understanding of what others are going through without having to actually experience it themselves. This could possibly limit the amount of negativity children with medical conditions receive due to their health.

Grace Lin, a children's author and illustrator dedicated to creating more Asian diversity in children's books, said on the subject, "How can we expect kids to get along with others in this world, to empathize, and to share if they never see outside of themselves" (Lin, Grace ). BJ Epstein, Senior Lecturer in Literature and Public Engagement at the University of East Anglia said on the matter, "...we owe it to young readers to show them reality in the books they're reading. Perhaps then the next generation will be less frightened of the "other" if they get to meet them and learn about them from an early age" (BJ Epstein).

### **Mental Health of Children with Chronic Illness and the Shadow Beast**

When designing the antagonist for this story I knew it should be something that could be relatable to all children. Through the hours of rough concept sketches a monster was formed, one

of vapors and mists. It could not be physically strangled or strapped down. This type of beast could not be slayed with a mere sword because it was as untouchable as the dark thoughts it represents. The shadow beast (figure 1) became a monster most people face within their lifetimes.

Depression, isolation, fears, and suicidal thoughts can occur even when a child is not living with a chronic illness. However, a study conducted by T.M. Huurre and H.M. Aro revealed:

Many cross-sectional studies have found that children and adolescents with chronic illness and disabilities are at increased risk of psychosocial problems. Chronically ill children and adolescents have been reported to have lower self-esteem, poorer body image and more problems in psychological well-being, behaviour, and social adjustment than those without chronic conditions (Huurre).

The plausible cause of this might be the fact that “children and adolescents with chronic illness live in two worlds” (Eiser). Life becomes a balancing act of denying who they are and trying to be a “normal” healthy child. They must maintain their health and, depending on the severity of their health condition, manage frequent hospital visits along with other day-to-day events and activities. “Coping with a chronic illness can be discouraging and scary. It is incredibly important to stay hopeful. [And not to] ignore ...worries or... negative feelings—they need to be recognized and addressed. But it’s not helpful to dwell on them” (University of Michigan Health System).

The shadow beast tries to capture its victims the same way depression, anxiety, and stress traps many children’s mental wellbeing. The monster can take the shape of many forms, however, during the duration of *Noor* it has wolf-like features. Its sharp fangs and claws are a representation of how negative thoughts are threatening and harmful. The glowing eyes represent how no personal flaw or self-conscious thought is forgotten by those who are suffering from

depression or are having extreme self-deprecating thoughts. Wilda and Riverstone, *Noor's* main protagonists, must overcome their own doubts and negative thoughts about themselves in order to defeat the shadow beast. They do this by using their noor. Noor means inner radiance or light.

### **Need to Maintain Independence**

It is important for children who have chronic health conditions to have independence. Christine Eiser in her article *Effects of Chronic Illness on Children and their Families* wrote the most successful family environment for a child with chronic illness is when the family recognizes the child's need for independence, and insures the child learns how to take responsibility for their own care (Eiser). Characters with health issues that live an independent and productive life, despite their struggles, can be an inspiration for children to work towards concerning their own independence.

Directors Michale DiMartino and Bryan Konietzko's character Toph Beifong (figure 2) in the children's animated series *Avatar the Last Airbender* is a prime example of a well written character who is independent despite her health condition. Toph is blind and faces challenges because of that, however, she does not let that stop her or slow her down. She is a strong heroine who becomes the most powerful earth-bender her world has ever seen.

The character General Amaya (figure 3) from Aaron Ehasz's animated series *The Dragon Prince* featured on Netflix is another example. General Amaya is deaf and speaks only through American sign language throughout her time on the show. Her handicap does affect her reacting to certain things in her environment, however, it does not slow her down. She is a fierce warrior and leads the king's army and is respected among all the characters, even her enemies. Her valor are what people remember about her, not the fact that she is deaf.

Like Toph and General Amaya, Noor's main characters are not defined by their health conditions. It is a part of who they are and accepted as readily as their eye color. A health condition is an attribute that a person has, but it is not their entire identity nor their personality. The storyline and characters reflect this. While the characters do face situations that are hindered by their conditions, they also face trials that have nothing to do with their health. This is significant because it offers more role models for children with health conditions. They can see that Wilda and Riverstone face obstacles and overcome them successfully, and the children can be inspired to face challenges in their own lives despite the having health conditions that may affect their daily living.

### Character Design

Before the story of *Noor* could be written, I had to decide who the characters were and design them to be relatable to as many children as possible. Character design is an important factor in storytelling, because if you create a character no one cares about, the tale will not matter. Benita Winckler in her book *Beginner's Guide to Digital Painting in Photoshop*:

*Characters* said:

We tend to perceive the world around us with a lot of biases; stereotypes do exist. If they are overdone in an artwork it can look kitsch and our reaction will be either boredom, or amusement if the presentation is really over the top and intelligently done so on purpose. As character designers we need to be aware of known character types and the associations that go along with them. The big task here is to create interest and avoid generalizations (where the result is boredom), while at the same time showing our audience something that they can relate to. To do so, we need to open a door into the audience's past experience. We need to find something that will connect with them on a deeper level. If you are able to talk to your audience about something that is meaningful to them, which taps right into their feelings and their emotions, then you get a response for your artistic endeavors (Winckler, Benita 54).

Unicorns have a stereotype that even children are well versed in. Images of a perfect, pure white mystical horse with a magic horn such as *The Unicorn Rests in a Garden* (figure 4)

depicts, or colorful renditions found in *My Little Pony* (figure 5) are the typical thoughts of what unicorns look like. I chose to use this stereotype to my advantage. While the protagonists in *Noor* are unicorns, they do not fit the common depiction of what a unicorn should be.

Each main unicorn character in *Noor* was designed to represent a different health or skin condition, similarly to how Toby Allen designed the creatures in his series *Real Monsters*. Each character in Allen's series represents a different mental condition. He created *Real Monsters* to, "reduce the stigma surrounding mental illness and aims to educate about lesser well-known conditions," (Allen, T). His rendition of Bipolar Disorder (figure 6) uses color to help display the fluctuation of emotional status these individuals face. A bright cheerful orange, to represent the manic extremely excitable and active mood it brings, wraps around half of the body. The other part of the creature is covered in blue, orange's complementary color, to symbolize the depression bipolar disorder brings on. For his piece *ADHD* (figure 7) he uses overlaying lines and shades of blue and red to give the creature the appearance of being out of focus, to represent how people with ADHD have a hard time concentrating on everyday tasks and how their minds jump from one thought to the next rapidly.

Wilda and Riverstone are the two main protagonists in *Noor*. Wilda (figure 8) has the skin condition vitiligo that causes pigment to be lost in certain areas of the body, mouth, hair, or eyes. The male protagonist Riverstone (figure 9) has a condition called amelia, a defect where one or more limbs is lacking upon birth. He is missing his back right leg. I chose this condition specifically because traditionally, horses were, and still are, often euthanized if a leg becomes broken, defective, or damaged because the horse is viewed as useless without all four legs functioning properly. Individuals with chronic illnesses are often seen as a liability or not as capable as those who have no health issues due to ableism.

Many of the supporting unicorn characters also have a chronic condition as well. Fern (figure 10) has dwarfism. The dwarfism color awareness ribbon is green, so the color was implemented into Fern's color palette. Gail (figure 11) has epilepsy, a neurological condition that causes seizures. Since this condition cannot be physically drawn or represented like the other health conditions, both Gail's fur and her environment are purple to match epilepsy's color awareness ribbon. Dune (figure 12) has a cleft lip and pallet, a birth defect that occurs when the lips and mouth do not form properly while in the womb. He is the color of his environment for camouflage purposes. The pink in his gums stand in contrast to his fur and match the cleft lip awareness ribbon color.

While most of *Noor's* characters are unicorns, which are fictional creatures, they are all based on existing animals and were designed using Ørjan Ruttenborg Svendsen's ten percent philosophy. In the book *Beyond Art Fundamentals: A Guide to Emotion, Mood, and Storytelling for Artists*, Svendsen states fiction can become too unrealistic, and the viewer will lose their point of reference. Svendsen suggested artists make their fantasy believable by "[changing] ten percent while keeping ninety percent true to reality" (Svendsen, Ø R).

Wilda and Riverstone are designed after white-tailed deer fawns. Historically, European unicorns have elements of deer in them such as their cloven hooves. Fern is modeled off of miniature horses, a breed that frequently suffer from dwarfism due to forced inbreeding. Gale was inspired by mountain lions and elk. European unicorn designs have lion features, and since Gale lives in a mountainous area, I wanted to include species that actually lives within that type of environment. Dune was designed off of the greater kudu, his oversized ears and light-colored fur are meant to help keep him cool in the severe heats of the desert. Similar to how a jackrabbit manages to regulate its body heat in extreme temperatures.

There is meaning behind the names of each character. While designing them I created lore for each of the unicorn herds. Wilda's name means untamed, to strive, and wild. Her parents named Wilda in honor of the thunderstorm she was born in. I wanted Wilda to have a strong and empowering name since she was the female lead, to help girls who read *Noor* to realize it is good to go against the flow of society when it is unjust. Much like how Wilda took a stand against the Topaz's father in the story, other girls, and boys, need the courage to stand up for what is right and fair, even when that means standing up to adults.

Riverstone's herd has the habit of naming their foals after stones and gems. They value tradition and steadfastness above most other things and, similar to the stones they are named after, take pride in being unshakeable and unmovable in their traditions. Riverstone, however, realizes traditions that hurt others should not continue to be practiced which is one of the reasons he left with Wilda to save his family.

Fern's herd has reverence for the environment and The Wood where they live. Because of this, the herd allows each foal to choose a type of flora to be named after. Fern selected a royal fern leaf. Dune was born within the Glass Desert. The same tundra the shadow beast took over. During the time of his birth his herd was battling the shadow beast and was trying to run it out of their homeland. The shadow beast was slowly eliminating the desert creatures who lived there one-by-one. Dune's parents named him after the desert sands to help him remember the beautiful place it had once been before the monster came.

Gale is the one character who does not have a lore within the world of *Noor*. I wanted her name to be nature based, similar to the other unicorns, but there is a personal connection with this name. Gale is named after a friend who has epilepsy and suffered their first seizure one day when we were in class together. I had CPR and First Aid training while the teacher did not.

Because of this, I was able to help keep them safe until the EMTs arrived. They reached out to me during the development of *Noor* and agreed to let me base Gale's name off of their own.

### **The Written Story**

While illustrations and art are important parts of my thesis work, *Noor* could not be successful without compelling storytelling and written dialogue. Fantasy young adult authors such as Alethea Kontis and with her series *The Woodcutter Sisters*, Holly Black from *The Spiderwick Chronicles*, Peter S. Beagle's *The Last Unicorn*, and C.S. Lewis' *The Chronicles of Narnia* inspired the writing style for *Noor*.

I wanted to write *Noor* because I knew what it was like to not have good representation within media, I wanted to create characters that children could look up to. Especially children who were facing health issues because representation matters. Many of the characters who did have health conditions were in position of supporting roles, such as the sidekick or the comic relief of the story, but never really the main characters. As if a character who has a health condition was too broken, not strong enough to be a main character, or that the only use a disabled individual had was to uplift the healthy individuals. It is important to remember that people with disabilities and health conditions do not exist for healthy people to feel better about themselves. Individuals with health issues exist for their own benefit and prerogative and are strong enough and good enough to be main character figures and role models for children.

Young adult books *Wonder* by R.J. Palacio and *The Fault in Our Stars* by John Green are notable for their protagonists' chronic health diversity. *Wonder* is about August Pullman, also known as Auggie, and his family and friends. Auggie was born with a facial deformity, a combination of Treacher Collins syndrome and a hemifacial microsomia. The book talks about how Auggie and the various people in his life have been affected by his condition. *The Fault in*



*Our Stars* protagonists Hazel Grace and Gus Waters both have cancer. Through Hazel Grace's narration the reader is able to witness how her and her parents' lives have changed dramatically because of her health, as well as the mental and emotional toll it takes on her.

Rick Riordan's character Percy Jackson from *Percy Jackson and the Olympians* series is another notable character who has ADHD and Dyslexia. Throughout the story Percy faces trials that challenge his conditions, but these are only subplots of the storyline. His ADHD and Dyslexia are just a part of who he is. The written portion of *Noor* takes a similar route. While there are moments throughout the story where Wilda and Riverstone run into problems involving their health and skin conditions, the plot focuses on saving their families.

### **Augmented Realty and Creating Deeper Interaction Between the Reader and the Characters**

Minna Sunberg, a Finnish artist and illustrator, wants her readers to interact with her characters from her comic series *Stand Still, Stay Silent* in a way that goes beyond just reading about them. Sunberg taught herself to code, how to make video game application and art, and began creating her game *City of Hunger* (figure 13). Through this video game, viewers will soon be able to play as their favorite characters and walk them through the storyline and be with them as they face challenges.

*Noor* features a similar method of interaction, through augmented reality (AR). Augmented reality takes digital information, images, and animation and overlays it onto the real world. Most AR applications are viewed through apps and mobile devices, however, the use of head mounted displays and smart glasses can also display augmented reality visuals.

A golden unicorn icon (figure 14) will be placed throughout the text to identify what pages have augmented reality associated to them. By using the *Noor* app, readers will be able to interact with the characters and world in ways beyond what a traditional book can offer. The characters can come to life in a way not possible merely through text and still images. The use of augmented reality throughout the work is a symbolic gesture. Just as the viewer takes the extra time to look and see what lies beneath the surface of the book, to see a more revealing truth, the same could happen if individuals took the time to get to know individuals with chronic health conditions. They would see the person beyond their initial impression and allow them to actually get to know the person themselves. Empathy and a deeper understanding can grow. Ingrid Solloum, founder of ImagineMe, a company that creates personalized books accompanying 3D augmented reality applications to go with them, said:

It's not about what AR as a technology can achieve – it's about the way it is leveraged in books so that it hooks and enriches the young reader's experience in ways that a normal book could not. It should address specific pain points perceived by those young readers, who tend to enjoy books in a different way and want to get involved, not just from a reading perspective. That's where AR can provide additional depth and richness to making reading more fun, interesting and engaging (Bonsaio).

Alford Espidol, founder and CEO of Launchable, a company that uses AR to increase children's literacy, commented, "Augmented Reality works on reading because it uses multimodal learning, meaning we are using more than one sense in the brain to learn... This creates a strong emotional tie for young readers... they are attached to the book and part of the story. If you watch any kid read with augmented reality it's as if they are playing a game" (Bonsaio).

While this addition to *Noor* is conceptual, it also allows for it to be a part in the upcoming trend of AR implementation that is predicted to descend upon the world. Even though augmented reality has been around for several years, it is still foreign to most. The use of AR is predicted to increase, and its diversity of applications will continue to grow.

Augmented reality, a set of technologies that superimposes digital data and images on the physical world, promises to close this gap and release untapped and uniquely human capabilities... AR will affect companies in every industry and many other types of organizations, from universities to social enterprises. In the coming months and years, it will transform how we learn, make decisions, and interact with the physical world. It will also change how enterprises serve customers, train employees, design and create products, and manage their value chains, and, ultimately, how they compete (Why Every Organization Needs an Augmented Reality Strategy).

The specific instants in the book where there is AR were chosen because they are key moments within the storyline. The first moment of augmented reality occurs at the end of chapter one when the shadow beast descends upon the unicorn herd (figure 15). This animation features a close up on Wilda's face. The viewer is closer to Wilda in this moment than any other time in the storyline because I wanted to dramatize her emotional response in this scene.

The next moment augmented reality occurs at the end of chapter four (figure 16). This scene was important to include in the storyline because it was the moment Wilda and Riverstone finally found out where the shadow beast lived. This animation shows just how far they still have to go, making it clear how hard and long of a journey they are actually embarking on.

The third AR animation is found at the end of chapter 5 (figure 17). At this point of the story they have overcome challenges that affected both Wilda and Riverstone's mental health. They are tired and have traveled for several days and hear that the worst of their journey still lies ahead of them. Learning this could have overwhelmed them and caused them to give up, but they did not.

Dune showing the two unicorns how to use their noor becomes the next key moment animated within the storyline (figure 18). Each unicorn's noor is their inner radiance, or inner strength and beauty, it is as unique as they are in both movement and color. Wilda's resembles yellow lighting and Riverstone's looks like blue waves of light. Dune's noor, however, is described to pulse like a small heartbeat. I wanted to display the actual motion and pulsing effect of it in this animation.

The last AR happens when Wilda and Riverstone briefly become captured while trying to save their families (figure 19). The pages before this hidden animation show the shadow beast telling Wilda she has failed her family and friends. Shortly after hearing this, Wilda herself admits she has failed. When the reader turns page...there is nothing on the next one but darkness. This happens when that page is turned as well. This happens for three spreads. It was really important to me to get this moment in the story right. I did not want them to see Wilda experiencing the attacks of the shadow beast, I wanted them to see how she *felt*. She was completely lost and overwhelmed by the shadow beast. That is why there is no text or clear images for several pages, not even page numbers. The next time we see an illustration of Wilda within the actual text is when she has overcome the shadow beast's whispers. I wanted the reader to see Wilda in that moment and for that image of her to be the one they remember from this portion of the text, it is her moment of victory. However, I still felt like the reader seeing what Wilda looked like while trapped was important to include within the story which is why I made it a part of the augmented reality.

In the beginning of the book I establish that the golden unicorn icon means there is augmented reality hidden on that page. That meant the cover, title page, and the AR instruction pages should also feature augmented reality based on those rules. I made animations for those as well because of that. The cover was designed to mimic a magic tome, so I added constellations and moving stars to it and animated the horn on the unicorn to shine (figure 20). For the title page (figure 21) and AR instructions (figure 22) pages I added a horn shining animation and flying magic particles.

### *Noor* Post-Thesis

I believe that *Noor* has the potential to become a book that children can relate to. *Noor* will not die once my Masters of Fine Arts degree has been completed. I do have future goals and plans for it post-graduation. The first step is to publish it. I believe in this work and project. I want to see it out in the world in the arms of children. I will be bringing it to an agent to find a publishing company that best suits the story and what it stands for. An immediate step I am taking towards my publishing goal is to submit it to the Society of Children's Writers and Illustrators Works-In-Progress award. This award was made to help writers and illustrators of children's books to complete a specific project that is not currently under contract.

While *Noor* does feature augmented reality aspects that requires a smart phone to access, not all children have the privilege to have access to smart phones or are allowed to have apps like *Noor* on their phone. To combat this, I plan to have additional ways for children who fall under these categories to access the AR. One possible route I plan to take is to create an eBook where video links are attached to the file and clicking the image will allow the hidden animations to appear. Another possible way to do this will be to create a website and have the AR moments posted there for children to access.

Other future goals include making more books based on these characters and universe. One specific reason Fern's character was created with their attachment to nature was to leave an opening for a possible story focusing on the environment. There were also other characters with other health conditions that were created in the concept phase of this thesis that did not make it into the final story, such as an asthmatic unicorn (figure 23) and a unicorn that has Cushing's Syndrome (figure 24). Creating more stories and books within the universe of *Noor* would allow me to continue to create more representation for characters with health conditions. There are also

possibilities for merchandise made of the *Noor* characters including stickers (figure 25), keychains, and toys (figure 26) as well as games.

### **Conclusion**

One reason this work is so important to me is because I belong to the chronic illness community. I know what it is like to be looked over or down upon because I have health issues. I want *Noor* to be the book I never had. One that could help me understand what others with chronic illnesses go through, but also something that helped me see myself within the characters. Making this work in the United States during a pandemic only emphasized how there is a gap in empathy and understanding between healthy individuals and those with health conditions. People with chronic illnesses are still contributing members to society and their lives are valued. There is a large gap in understanding and empathy between healthy individuals and those who have health issues currently within the United States.

*Noor* can also produce more diversity within children's literature to inspire children with chronic health conditions. As Jenni McDonald said, "All children need to see themselves and their peers in...stories" (Diversity in Children's Literature). Because representation matters. The point of this thesis is to help children not feel so alone and isolated within their world. *Noor* can give healthy children a sense of understanding and empathy towards individuals with disabilities and health conditions, just like the book I read at eight years old affected me and helped me understand what my cousin went through. *Noor* is going to expand on the groundwork already laid by other books like that. There needs to be more diversity within children's media to help create empathy between the upcoming generations so our society can start to dismantle the ableism that currently exists in America.

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