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# Mudpies & Dragonflies: The Value of Unstructured Play in Environmental Education

Tyler Chisholm, Western Washington University

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## Abstract

*Hello everyone and thank you for coming to the very first open house of Mudpies & Dragonflies Nature Preschool where our kids spend everyday, rain or shine, wind or snow outside exploring the natural world! I'm Tyler Chisholm, the director and lead teacher here at Mudpies. I, for one, am incredibly excited to be here today because opening this school has been a dream of mine since graduate school at Western Washington University where I received my Master's of Education in Environmental Education. But before we get started with what a nature preschool is and why I think this type of education is essential to young learners, I think it's important to tell you a little bit of my story and how I found myself on this path to a nature preschool.*

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## Keywords: early childhood education, environmental education, nature-based play

I'll start off with a story, specifically one of my very first memories in the outdoor world.

Now that is my story, but I'm guessing you all may have similar stories, because the majority of us grew up in a time when unsupervised unstructured outdoor play was the norm. But unfortunately times are changing and for many, childhood has become less playful and less wild as it is dominated by supervision, structure, and surrounded by walls. I, fortunately had the opportunity to discover my own passion for the natural world at a young age because my parents deeply valued being in, playing in, and learning about nature. As I mentioned, majority of my childhood was spent outside, either on family trips, girl scouts that more resembled boy scouts because my mom, our troop leader and feminist at heart, thought camping, science experiments, and getting muddy was more important for young girls than crafting and cookies, my 15 summers I spent as camper and counselor at Camp Varsity, a residential summer camp in the foothills of the Blue Ridge Mountains, and, of course, the countless hours I spent exploring my own backyard and saving worms. While all of those activities occurred almost exclusively in the outdoor world, they have one other thing in common: Play, specifically unstructured play and exploration. Which is, not so surprisingly, the foundation of Mudpies & Dragonflies.



And speaking of education, my passion for teaching began much later in life, although it was definitely modeled for me through my parents who are both educators and life-long learners. My journey towards becoming a teacher began at the end, so to speak. The end was the final year of my undergraduate Geology & Geophysics program at Purdue University. Being an Engineering University my program was specifically aimed at the Oil & Gas Industry and in that last year, I became disgusted by the fact that nobody seemed concerned about the impacts of the work we were doing, just the new, most efficient method of resource extraction, and hey, the potential six figure salary was worth it... right? WRONG. Then and there I made the decision to dedicate myself to education for and about the natural world, and of, course science. I became a substitute teacher for a brief stint and then moved all the way to Washington State for graduate school with high hopes.

I'd have to say that my graduate career was the most prevalent factor in leading me on the journey of starting Mudpies, not necessarily in teaching me how to be a teacher, but in two surprising ways: first: disillusionment and second: discovery. The disillusionment aspect of the program came in the form of trying to teach fifth graders the importance of the natural world through inundating them with facts mandated by countless standards when many of them could care less. They didn't like school in the first place, and now we were just taking it outside. Additionally, if they weren't fortunate enough like I had been as a child, to have a foundation of love for the natural world before the program, changing their attitudes through a 3 to 5 day program was merely impossible and completely frustrating to me, because I wanted to save the world, right? However, this realization was not all negative, I discovered that a foundation of positive experiences in the natural world is critical before knowledge about it. And this small, seemingly obvious, epiphany lead me to the second half of my graduate career: discovery, where I found my niche, so to speak. The place where I felt I could make a difference, and surprisingly to me, it wasn't all about teaching facts and passing on knowledge, and hoping that one or two light bulbs would turn on. It was with a much younger audience and it was based on a concept that I had rarely put much thought into; play.

This playful path began the summer when I had the opportunity to be a volunteer interpretive ranger with the National Park Service and co-lead and create curriculum for a summer school program for the Concrete School District's 1<sup>st</sup>-5<sup>th</sup> graders. Both opportunities allowed me to experience working with a younger audience and rediscover a sense of wonder through a child's eyes. And, I got to hang out with my absolute favorite bunch of eager learners, Jr. Rangers! While this got me started on the path to play, the culminating event in the journey to starting Mudpies was my experience as a lead preschool teacher at a small, Reggio Emilia inspired preschool in Bellingham called the Madrona School. At Madrona I was able to take a step back as an instructor and see the magic of playful learning first-hand with my two-and-a-half-year-old to five-year-old students. I couldn't have asked for a better transition into the world of play.

So, that's the story of how Mudpies & Dragonflies Nature Preschool came to be and you can see how my experiences have really shaped our philosophy here at Mudpies. We believe in integrating play and nature into the everyday lives of children in order to promote development and nurture each child's natural sense of wonder. It is our strong opinion that through this model of education, we are not only nurturing our children's connection to the natural world, but also helping them to develop the social skills, critical thinking skills, and creativity they need to succeed in school and the world beyond.

Additionally, at Mudpies we value authenticity and I often find myself learning, exploring, and playing along side my students. Surprising, I know, because in our culture, play is seen as childish, something reserved for those under ten. However, that type of thinking is way off the mark. Studies have shown that play is important throughout life, not just in childhood. So, in order to be authentic and walk the talk, so to speak, I wanted to begin this presentation with some time for unstructured play. For me, this accomplishes two things: (1) you get the chance to experience a bit of what a day at Mudpies is like for our children and (2) you get to tap into the creative playfulness that is your inner child. And believe me, you do have an inner child, even if it's buried deep down inside. Play, like meditation, has a way of opening the mind, relaxing the body, and allowing the boundaries between ourselves and others to fade away. Rarely as adults do we get the time and/or opportunity to play, so enjoy it! If you're not quite sure what to do, don't worry; it's like riding a bike. Just look around you and let your imagination be your guide. I've set out some materials and tools that we sometimes use at preschool, so feel free to use those if you want. We'll explore for just about 5 minutes, so it will be short, (sorry about that) and I'll play the recorder when it's time to come back. Let's just be mindful of time since I have so much to share with you! So, on that note, GO PLAY!

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### ***Unstructured play time – 5 mins***

I know five minutes was definitely not long enough to really enjoy your play time, but it puts in perspective what children in schools across the country face as their recess and unstructured play time is taken away to make way for the ever-increasing load of academics, which by the way, is starting younger and younger these days. But, I digress, let's talk about what you just experienced, besides the lack to time, does anyone want to share something they noticed, or felt, or did, while they were outside playing? (*audience answers, 2 or 3*).

For many of us, just the word "play" brings us back to our childhood, but increasingly other, not so positive, words are being associated with childhood; things like ADD/ADHD, Depression, Anxiety, Bullying Nature Deficit Disorder and Obesity. It is thought by researchers that this trend actually has to do with the lack of play and time spent outdoors in our concept of modern childhood. Through play deprivation studies in mice, behavioral scientists have observed some of these same symptoms

present in our generation of children in mice that weren't allowed to play, showing that a life without play is dangerous to the well-being of developing individuals. It seems silly that we're taking away something so essential to the flourishing of our children.

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## **Play Benefits**

While I know you've all come to hear about Mudpies & Dragonflies, since we're built upon a foundation of play, I think it's important to discuss why play is critical for our children, why play matters, so to speak. If we're quote on quote sacrificing time away from academics for play, shouldn't we have a reason? Well, fortunately we have a reason, a lot of reasons and a large body of research to back it up. And, while I could spend the entire day talking about the benefits of play, I'll just touch on the overarching categories. Play supports childhood development in multiple arenas, from attention development to cognitive development, motor and emotional development, as well as social and linguistic development. Additionally, play has been shown to have general health and mental health benefits.

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## **What is Play?**

But what is play? Can you define it? I keep mentioning the word, and for my scientific brain, I don't like vagueness, I like to have concrete definitions in order to fully understand what it is we're talking about. But play, by its very nature, is vague. Play can be anything from physical play such as running or jumping, linguistic play with puns & rhymes, constructive play like building forts or structures, imaginative or socio-dramatic play where children imitate what they're seeing in the world or what they not seeing, and it can also look very structured, like formal games. And, even more confusingly, another factor to consider is that all play activities are not universal. What is play for one person is not necessarily play for another. So, how do we define play?

Well, comfortingly to me, I am not the only one who struggles to define play; play scholars around the world have been trying to pin it down for decades with no avail. However, some common defining characteristics have arisen through the discussion. Recently, Dr. Peter Gray, a professor of psychology at Boston College, synthesized the various play definitions that have appeared over the past couple decades and came up with five defining characteristics of play. In his book, *Free to Learn*, he describes play on a continuum, with activities ranging from not playful to extremely playful based on how many play characteristics can be attributed to the activity. So if an activity does not embody all characteristics of play, it doesn't mean that it is not play, it is just less playful than one with all of the characteristics. So, briefly I'll describe Dr. Gray's five characteristics of play in order to get us all on the same playing field, so to speak.

The first characteristic of play is that: “Play is self-chosen and self-directed.” In play, the ultimate freedom is the freedom to quit. So children work together in a very democratic way in order keep as many players playing as long as possible. For instance if one child doesn’t like a particular rule, they will quit and if the game isn’t perceived as fair, they’ll quit. They have to work together either to self-handicap if their skills are superior to other players and/or to negotiate the rules in order to keep everyone playing. As a preschool teacher, I see a lot of this, and sometimes the negotiation process can last longer than the actual activity, but it’s all wrapped up in play.

The second characteristic is that: “Play is motivated by the means more than the ends.” While play may have goals, these goals are less important than the way of reaching those goals; just like the saying “It’s about the journey, not the destination.” And, interestingly, a study of kindergarteners showed that rewarding a playful activity can actually undermine play and turn it into work.

The third characteristic is that “Play is guided by mental rules.” Play is nature’s way of teaching children to control their impulses and behave in accordance with shared conceptions of how to behave. In essence, play is the art of learning how to be a member of society and society is governed by these mental rules.

The fourth characteristic is that “Play is imaginative.” Play is in some way mentally removed from the real world. And that’s one of the reasons why it is so stress relieving and it helps refocus attention. Play fuels the imagination and expands creative thought, which is incredibly important in solving our world’s problems. Albert Einstein thought of designing, hypothesizing, and planning as imaginative and famously said “play is the highest form of research,” and “imagination is more important than knowledge.”

The final characteristic of play is that “Play is conducted in an alert, active, but non-stressed frame of mind.” Which can also be described, in psychology, as a state of FLOW where one’s skills are adequate for coping with the challenge of an activity. Showing that play is not easy, not without challenge, but since the goals are often self-set, they’re usually set at their own ability level, leading them to this state of content focus, or flow. Many have described this state as losing track of time, being in the zone or “time flies when you’re having fun.” And research has again shown that this state of flow is the ideal state for learning, creativity, and insight.

So, while we may not have a concise definition of play, we now have some defining characteristics to help us determine the playfulness of an activity. And since my degree is not in psychology, but environmental education, let’s talk about why outdoor play is important for the future of our planet. Why I think, play can be a form of environmental education.

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### **Why is play important for environmental education in particular?**

I'm guessing since you're all here for an open house for a nature preschool, most people in this room probably have a love for the natural world, and for many of us, this love has brought us to protect it in some sort of way, whether it be saving worms from your driveway or something a bit more extreme. My question to you is: where do you think that love came from? Did it come from learning facts about the natural world through school or an environmental education program? Or did it come from simply spending time outdoors? In her research, Louise Chawla asked that very question: what factors lead to pro-environmental attitudes and behaviors in adulthood. She interviewed environmentalists in the United States and Norway and found that the majority of them mentioned special natural places from childhood play. So, if pro-environmental attitudes and actions in adulthood is one of the goals of Environmental Education, then it seems that outdoor play is definitely something to consider.

Additionally unstructured play in a natural environment serves as an incubator for developing an environmental identity, which is academically defined as "a sense of connection to some part of the nonhuman natural environment that affects the way we perceive and act toward the world; a belief that the environment is important to us and an important part of who we are" as described in Clayton, 2003. According to the Self Determination Theory, the basic needs for identity development are: autonomy, connection or belongingness, and competency (Ryan & Deci, 2000). Through engagement in play in the natural world, children encounter all three of these factors necessary for creating and forming their own identity in relation to the environment. And, early childhood is the perfect time for this as research has shown that experiences during this period in a child's life give form to the values, attitudes, and basic orientation toward the world that they will carry with them throughout their lives, showing that this period is a magical time for educators.

Which is why, at Mudpies and Dragonflies we take advantage of this critical time and help connect those children to the natural world through play and exploration. And, now, since we have a better idea of what makes up the foundation of the philosophy here at Mudpies, let's explore the concept of a nature preschool and what it may look like on the ground to get a better idea if this type of education is a good fit for you and your child.

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### **Nature Preschool**

As you can see by the fact that my only classroom is a tiny house that the children spend time in only when the weather is too horrible to be in, our actual classroom is the world without walls, which is very different than your typical preschool where children are ushered through a series of transitions, academic activities, and yes a little play, in a warm classroom with bright colors, alphabet and number posters, and toys occupying

every nook and cranny. And since, I'm a very visual person, and I'm betting that not all of you have spent time in a traditional preschool classroom, I'm going to show a short video clip of a typical traditional classroom day. Let's see: **CLIP**

A nature preschool is dramatically different from what I just showed you because, as I've mentioned, this model of early childhood education is based outside. Everyday. Rain or shine. Throughout its history, this concept of education has evolved from Friedrich Frobel's idea of kindergarten (which literally translates into children's garden) in which he believed that the natural world should be integrated into every aspect of early childhood education; into a variety of derivations as it spread throughout Scandinavia, Europe, and across the globe. Names have also evolved with from kindergarten, walking kindergarten, waldkindergarten, In Rain or Shine School, Forest School, BushKinder, Forest Kindergarten, etc. And since each of these models are ever-so-slightly different, in order to avoid confusion, I've called my model a nature preschool.

The Nature Preschool concept is based on the belief that children learn best when playing in and exploring the natural world away from the walls and academics of the traditional classroom. Instead of learning to read and write, children in nature preschools are learning self-confidence, resilience, and social skills while developing a relationship to the natural world and expanding their creativity through play! Now, I could sit here and tell all about it, but I think it's easier to understand when you see it in action. So, here is a clip from the documentary *School's Out: Lessons from a Forest Kindergarten* of a "waldkindergarten" in Switzerland, which is what Mudpies is modeled after. I want you to pay particular attention to how this model is different from the traditional model here in the U.S. and maybe what things stand out to you that would make it challenging to adopt in our society here in America.

As you can see by the fact that my only classroom is a tiny house that the children spend time in only when the weather is too horrible to be in, our actual classroom is the world without walls, which is very different than your typical preschool where children are ushered through a series of transitions, academic activities, and yes a little play, in a warm classroom with bright colors, alphabet and number posters, and toys occupying every nook and cranny. And since, I'm a very visual person, and I'm betting that not all of you have spent time in a traditional preschool classroom, I'm going to show a short video clip of a typical traditional classroom day.

<https://vimeo.com/32463946> (6 mins)

*Pretty amazing, right? So what differences did you all notice between the first clip of an American Kindergarten and this clip of a "waldkindergarten?"*  
(audience answers)

*How about what challenges stand out when thinking about applying this model to the U.S.? What concerns do you have as parents or community members about what we will be doing here at Mudpies?*

*(audience answers. Looking for Play vs. Academics/School Readiness, Risk, Look Don't Touch nature, and the role of the teacher)*

These are all valid concerns and questions, but in the interest of time, I'll focus on the four, in my experience, most frequently voiced questions and concerns.

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## **Risk**

The most common concern associated with a nature preschool is risk. Specifically, will my child be safe? And is the risk worth it? In short, the answer is yes to both questions, however, our society has trained us to think the opposite. We live in an incredibly risk-adverse society with the threat of lawsuit looming over any activity where possible (even if not probable) risks may occur. For instance, just this past month in Maryland, parents of a 6- and 10-year-old were investigated by Child Protective Services for letting their two children walk alone to a playground that was less than a mile away from their house. Our obsession with keeping our kids "safe" is getting ridiculous. And our lack of trust in children has led to a sterilization of play where an abundance of rules limit the possibilities of play. Ironically, studies and observations have shown that this over-coddling, risk-eliminating behavior has actually increases the number of injuries in childhood for the simple fact that children are unable to assess risks and their own abilities. By allowing kids to take calculated risks, they not only gain the ability to assess risks and their own abilities, but they feel a sense of independence and empowerment that is important for their development.

The nature preschool model, which allows children to take risks in a controlled environment, does not always sit well with parents who believe that childhood should be a time of perfectly protected playfulness and work incredibly hard to eliminate any possibility of risky behavior. This form of helicopter parenting gives kids the message that they, themselves, can't be trusted and that their skills are incompetent for handling what life throws at them. Does that sound like the kind of environment that raises self-confident empowered children?

At Mudpies, we send a different kind of message. We show children that they are capable and they can be trusted even with "dangerous" tools such as knives or fire, which they are taught how to use properly in order to avoid injuries based on natural curiosity. If we don't trust our children enough to teach them (or allow them to teach themselves) the proper way to deal with "dangerous" objects or situations, we are setting them up for injury, failure, and/or life-long fearfulness.

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## ***The Role of the Teacher***

Another challenge is the perception of the role of the teacher. I want you all to take a moment to think of your typical teacher. Chances are, they're standing separately, in front of their students, leading them in a lecture, discussion, or activity. They are the director of this learning process.

However, when play and exploration are at the center of the curriculum, the role of the teacher shifts to the background, as students begin to direct their own learning. In an age where the teacher's abilities are measured by their students' standardized test scores rather than actual student abilities, this more hands-off approach to learning can be seen as insensitive, untrained, and unproductive, when really it is just the opposite. By allowing children to make their own decisions and solve their own problems the teachers are giving them the gift of autonomy, of which they have few opportunities to experience in the current climate of childhood. The teacher becomes more of a role model than a director of learning and this authenticity has positive implications that go beyond test scores.

In Louise Chawla's research on adult environmentalists, she found that not only is unstructured play in nature in childhood important in shaping the pro-environment attitudes and behaviors in adulthood, but her research also highlighted the importance of having a "nature mentor" or an adult to show that nature was worth protecting. Likewise, on the play front, recent research has shown the importance of adults modeling playful behavior for children. A recent study interviewing adults around the world showed that a significant portion of adults lost their desire to play in adolescence, seeing it as "uncool" or "childish" and many of those who never regained this desire in adulthood suffered from depression, anxiety, and other mental disorders as adults. Upon further investigation it was discovered that the other group of adolescents, the ones who continued to value play throughout their teenaged years, had adults in their lives that modeled play and inspired them to continue to be playful.

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## ***Play vs. Academics***

Second to risk, the concern most often voiced by parents is about school readiness, specifically, will my child be ready for school. This is completely valid when our children are engaged in play rather than academics. The "product oriented" nature of American culture often seeps into our increasingly standardized educational system and the pressures of academics are cutting childhood short. Even Kindergarteners are expected to have rudimentary reading, writing, and math skills even before the start of their formal education. As many of you may reflect, parents live in constant fear that their child will fall behind academically (already thinking of college education before they have even entered the formal education system).

While I recognize that the fear of falling behind academically is completely valid and understandable in the "No Child Left Behind" era of education, stressing academics over unstructured play for preschoolers is not in the best interest of the child. The nature preschool model may **even** be better at preparing children to enter to world of academics. While there has yet to be any formal studies on the "school readiness" of children in American nature preschool programs, such studies have been undertaken in Germany where waldkindergartens have received official approval from the government as a valid educational system for early childhood. One particular study by Peter Häfner of the University of Heidelberg compared the academic performance of alumni of waldkindergartens to those of standard kindergartens during their first year together in formal school. Results of this study showed that children from the waldkindergartens outperformed their peers in almost all categories (such as 'cognitive tasks,' 'social behavior,' 'creativity,' 'physical ability,' etc.). And although they may have been behind in reading, writing, and math skills at the beginning of the year, it only took about six months for them to catch up to their peers, which in the grand scheme of education is no time at all.

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### **Lack of Toys/Creativity:**

When viewing the clip of the waldkindergarten and in looking around at this classroom, you might notice that we don't have a lot of toys, which is a stark contrast from your typical preschool/kindergarten atmosphere. While it would be understandable to think of these children as deprived or not as fortunate to have all of these materials, research has shown that fewer toys and toys made out of natural materials is actually better for developing children. For example if I have a toy carwash or a toy lawnmower, my play possibilities are limited because there is an expected and intended way to play with it. However, when given natural materials with only a few tools, children can expand their creativity and imaginations and create a myriad of possibilities. A pinecone becomes a creature, a hole becomes a fairy home, and a pile of sticks becomes a car.

*Now that I've addressed some of our concerns and potential challenges associated with nature preschools in general, I'd like get a bit more specific, and share with you the key founding principles and typical schedule here at Mudpies & Dragonflies.*

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### **Key Principles of Mudpies & Dragonflies Nature Preschool**

- We are play-based and provide unstructured time in nature, regardless of the weather
- We use an inquiry-style teaching approach with naturalist "mini-lessons"
- Our flow-learning is interest-led with play invitations
- We use a positive psychology & positive reinforcement approach

- We always provide the freedom of choice & the ability to take calculated, lightly supervised risks
- Our number one rule is to respect for ourselves, others, and the natural world
- We emphasize individual empowerment as well as group bonding
- We are dedicated to providing small class sizes with low student:teacher ratio
- (Adapted from Erin Kenny's Forest Kindergartens: The Cedarsong Way.)

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### **Typical Schedule**

8:45-9:00 – Arrival, meet at the Tiny Home Classroom

9:00-9:10 – Walk to forest “classroom”

9:10-9:30 – Snack/Story time

9:30-9:40 – Morning meeting (singing, information about the day)

9:40-12:00 – Unstructured Playtime (with play invitations)

12:00-12:30 – Lunch/story time

12:30 – 1:50 – Unstructured Playtime (with play invitations)

1:50 – 2:00 – Afternoon Sharing

2:00 – 2:10 – Return to Tiny Home Classroom for pick up

2:10 – Goodbye!

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### **Conclusion**

So I hope that this open house has given you a window into this revolutionary concept of early childhood education. At Mudpies & Dragonflies we will continue to integrate play and nature into the everyday lives of children, because, like the little girl moving worms from her driveway, we are just trying to do what we can to help save the earth. And since Mudpies is built upon natural spaces and play, I'd like to end on a quote about special natural spaces, and I've also asked the audience to help me read a poem about play. The quote is from *The Thunder Tree*, where Robert Michael Pyle describes his special place, a ditch near his childhood home:

*These are places of initiation, where the borders between ourselves and other creatures break down, where the earth gets under our nails, and a sense of place gets under our skin... It is through close and intimate contact with a particular patch of ground that we*

*learn to respond to the earth, to see that it really matters... Everyone has a ditch, or ought to. For only the ditches – and the fields, the woods, the ravines – can teach us to care enough for the land*

And finally, a poem by David Spencer Ramsey called A Pedagogy of Play:

*Play is freedom.*

*It is democracy in action, a revolution and a challenge to systems, structures, and dynamics that subjugate and oppress.*

*Play is optimism.*

*The generative space and time that sustains all that is most positive in the world.*

*Play says that the world doesn't have to be like this-  
the world doesn't have to be the way it is today –*

*Play says that the world can be bigger, smaller, scarier, safer, happier or sadder – it can be any of these things, or all of these at once,*

*And infinitely more.*

*Play is possibility in its purest form.*

*Play is hope.*

*Play is change.*

*Play is shaping the world in the image of our dreams and fears, instead of allowing the world to shape our lives.*

*Play is power.*

*In play we are able to take 'the world as it is' and create 'the world as it could be....'*

*Should be....*

*Would be....*

*If.*



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