

Unstructured Play and Creative Development in the Classroom

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Abstract

Unstructured play is thought to contribute to how children develop not only socially and academically but also creatively. It is during this time that children learn how to work together, adapt to different situations, experiment, explore, construct meaning, begin to learn what they like, what they are good at, and how to express their individuality. Structured learning tasks and play may expose children to situations where some of these skills can be nurtured, but the nature of these predetermined activities may limit the opportunity for individual expression and experience of unexpected outcomes necessary for creative discovery. In this paper we begin to lay the groundwork for ongoing research that is exploring the importance of unstructured play in how children develop creative thinking and behaviour skills, and the importance of these in their future. We describe a pilot study in which a typical classroom was observed to gain a better understand of how children engage in play activities in both structured and unstructured ways. We were interested in how during play activities children interact with each other, their supervisors, and their environment. This study will inform future research.

1. Introduction

The arguments in favour of the importance of creative thinking abilities in a rapidly changing economic, social, and physical environment are becoming overwhelming. Many commentators, governments, businessmen, and educators, beginning with Ghiselin [1] and Bruner [2], more recently but not limited to de Bono [3], Csikszentmihalyi [4], Robinson [5], Florida [6], Pink [7], Hackett [8], Martin [9], and Brown [10], as well as the Australian Department of Education Science and Training (1997) and South Australian Strategic Plan [11], have all argued that creativity is vital for both economies and quality of life under the accelerating rapid change we continue to experience and can increasingly expect. Children of the past have always needed the ability to adapt to a future that would be different to their present, but as we become immersed in the digital age it is only expected that that change will continue to accelerate and the need

for adaptation and anticipation with it. However, with a decline in the value of creative development for more traditional academic achievement, our children may be ill equipped to tackle the challenges of our future resulting from our advancement and may cease to evolve intellectually. It seems apparent that a contemporary learning environment must promote activities that are linked to creative development by providing the opportunity to explore and experiment.

Growing populations have led to the establishment of larger schools to provide for the primary educational needs of new suburbs and spreading metropolitan residential areas. These 'super-schools' are built on the premise of accommodating more children in a single institution as opposed to the traditional situation where more small community based schools served local (and walkable) living areas. One motivation for this strategy may be to reduce the economic burden on governments and be the result of so-called fiscal efficiency; however, larger class sizes can result in teaching activities that are more about crowd control than about creating beneficial learning environments. This may affect how and whether children develop in the way that is intended – creativity being only one aspect of this. However, if children are not provided with the opportunity for unstructured activity by pursuing their own play tasks they may not only lose the opportunity to learn vital skills linked to social interaction and individuality, but their creative development may also be inhibited. There are a number of reasons that unstructured play may be reduced as class sizes grow, including the following:

- larger classes mean that teachers are under stress to maintain control and manage behaviour;
- even at an early age, learning outcomes may be focused on narrow vocational oriented tasks thought to be essential for employment, life skills, and imagined future socialisation;
- pressures by both governments and parents on the curriculum prioritise more traditional learning tasks, particularly if these are easier for teachers and schools to measure academic progress 'en masse';
- fear for the safety of children presented by a sensationalist press has led to children being 'helicoptered' to school and continuously

- 'supervised' by parents and as a result much less free, unstructured, or unsupervised play (no playing with sticks or 'dirty' things, for instance) leading parents to expect the same 'safety' at school as they strive to provide outside of school; and
- there is a perception that the ability to think creatively is innate, a gift, difficult to teach and define, mysterious, and relevant only to the arts.

The fact that imaginative and creative thought, as well as the skills needed to access and use this ability, exist in everyone and that their development is teachable has been well documented in the literature [4–7, 12–14]. Creativity and creative development is an essential skill for all our endeavours and relevant to all areas of human activity. It can be regarded as the ability to shift one's perception in terms of how information can be reconfigured to create new models and meanings beyond what is expected, or what are the traditional ways of seeing things, issues, or problems, to come up with new ideas. Therefore, we may conclude that it is important for all levels of formal and informal education and because it involves the use of imagination and how knowledge can be applied by freely exploring possibilities it is likely an important part of the development and use of higher-order cognitive skills.

As with more traditional academic skills related to literacy and numeracy, creative development needs nurturing for individuals to reach their creative potential. Unstructured play is thought to be an important part of how children develop creatively as well as contributing to their social and academic development. During play children can learn how to work together, adapt to different situations, experiment, explore, problem solve, construct meaning, and begin to learn what they like, what they are good at and how to express their individuality and develop a positive self-concept. Play that is developed around structured learning tasks may expose children to situations where some of these skills can be nurtured, but the structured nature of predetermined activities along with the expectation by both student and teacher of a 'correct' answer may limit the opportunity for individual expression and experience of unexpected outcomes. It appears that these structures and approaches to learning and learning environments not only overlook the active encouragement of creative thinking – they may actually inhibit it. The fact is, before children begin formal schooling it is very common to observe traits of creativity in their behaviour, but in a large proportion of children these qualities quickly disappear by the time they finish school [5].

Unfortunately, many of the activities related to creative development that children engage in

naturally during play are quickly discouraged as more conventional educational tasks are expected when children begin attendance at typical primary schools. Jackson [15] records that the development of creativity is 'rarely an explicit objective of the learning and assessment process' (p. 4). The skills related to outcomes from creativity are perceived to be much more difficult to 'judge' than those related to literacy and numeracy and are, therefore, often pushed aside. What results is very little value placed on nurturing them. This may be to their and our detriment. It is fairly clear that more attention, not less, needs to be given to the value of developing creative thinking skills. Creativity needs to be nurtured continuously in children from a very young age for them to develop into adults who are able to add value to our way of life through creative problem solving and by producing more innovative solutions to challenges that we cannot yet imagine.

Managing the cognitive and creative development of children can be a difficult task in itself, but when taking into account that children do not all learn in the same way, it can be exponentially harder. Some have skills, or intelligences, in particular areas and struggle in others. In fact, Gardner [12, 13] suggests that there are eight, perhaps nine, different intelligences and that each contributes to a specific learning style. Gardner encourages a system of teaching that goes beyond the traditional focus on numeracy and literacy and encourages development other areas such as music, movement, language, spatial, and communication abilities. These individual talents influence how a child learns as well as what sort of skills they are good at. It is through unstructured play that children have the freedom to explore these abilities without the judgment or want for an expected outcome that may be present in traditional learning tasks. They can discover what they are good at or what they like to do. These are skills that can be developed and these children encouraged to contribute to our society in exceptional ways as a result of their unique ability.

Alongside recognition of different intelligences and learning styles, play is the ideal vehicle for supporting children's creativity and imaginative thoughts as it offers an environment for risk free exploration [16–18]. Jerome and Dorothy Singer [17, 19] describe the ability to engage fantasy as crucial to children developing the ability to be curious, generate internal imagery, and speculate various responses to differing situations. This fundamental human capacity is very much evidenced in play situations, and enables children to successfully engage in new situations. Creativity can be seen as a tool of problem-solving and therefore clearly has a connection to play. Play is children's way of knowing and experiencing the world around them. When children are given the opportunity to use imaginative thinking through play, they display

attributes of creativity, tend to perform better at school tasks, and develop a problem-solving approach to learning [20-25].

During creative play children learn how to work together, adapt to different situations, experiment, explore, construct meaning, begin to learn what they like, what they are good at and how to express their individuality, and develop a positive self-concept. Structured learning tasks and play may expose children to situations where some of these skills can be nurtured, but the nature of these predetermined activities may limit the opportunity for individual expression and experience of unexpected outcomes. By studying how children use creativity during play and learning activities we expect to be able to gain a better understanding of how they develop these essential problem-solving skills. We are working toward the development of a methodology for empirical analysis of creative development in children through the course of a large-scale research project, which can then be used to inform curriculum and how learning tasks might be approached in primary schools to encourage rather than inhibit attitudes toward creative development. The first stage of this project involves a pilot study in which we were able to build a foundation for the development of more in-depth qualitative and quantitative analysis. In this pilot work we observed a typical learning environment to investigate how play is integrated and how the environment influences creative activities. We examined specific aspects of how a typical day is structured in this learning environment to provide knowledge about:

- how much time is dedicated to play activities;
- what sort of play activities children engage in; and
- how children engage with each other, their peers, their supervisors, and their environment during these tasks.

Since children need the freedom to play in an unstructured way to develop the skills necessary for creative thought and problem-solving, by investigating how classrooms and lessons are structured we may be able to isolate specific tasks and ways of approaching play that can nurture the development of creativity in children and that will influence how they approach problem solving throughout their lifetime.

2. Method

This pilot study was conducted in a primary school in a Northern Suburb of Adelaide, South Australia. In this study we observed the day-to-day workings of a typical primary school classroom where we were able to establish a thorough understanding about how such a classroom operates: its structure, advantages, and burdens. From this

foundation we will be able to build a wider network of exploratory studies that can improve our understanding of creative development, its link to unstructured or imaginative play, and how learning tasks can be developed that nurture these skills.

2.1. Participants

A classroom of approximately 50 children between the ages of 4 and 6 was observed for this study. This school was located in a northern suburb of Adelaide which is known to consist mostly of underprivileged communities. Our partnering school has adopted what is considered to be a progressive attitude toward the education of young people and recognizes the importance of a stable and nurturing learning environment for the children who attend this school, and by extension, the families of those children. Although it is easy to see the value of this inclusive approach to education it is recognized that our partnering school may be unique in this regard. It is, however, considered an ideal environment to conduct our pilot work due to the innovative and progressive approach to education that is portrayed, and to their continued dedication to the communities in which the children live.

It was our aim when we conducted this pilot study to gain a clear and realistic picture of how a primary school classroom operates. The children, teachers, or the classroom activities involved were not to be screened in any way and were represented as they were observed, to the best of our ability. We were not interested in the academic performance of the children nor were the teaching tasks or styles evaluated in any way. This study was purely an observational study to gain a realistic and reliable understanding of the current structure of a classroom-learning environment and we endeavored to be as discrete and unobtrusive as possible.

2.2. Procedure

We observed the activities and structure of the classroom for two days over a 2-week period. This was both to establish a larger breadth of data since different activities may take place on different days and to allow us to determine whether there was any reliability in the behavior of both teacher and children. In addition, by spending more time in the classroom it is more likely that both the teachers and the children will develop a level of familiarity with us and with our presence in the classroom and act in a more natural manner. While this approach is useful in helping to build a level of familiarity with the research team and with our presence in the classroom, it also provides an opportunity for us to get to know the children and their supervisors.

As mentioned, it was our intention at this stage in our project to develop a foundation of knowledge

from which we can build more detailed studies. For this reason we were only interested in developing a picture of a typical day in a primary school classroom. Neither the children participating in the study nor their teachers were asked to perform any additional tasks; we were concerned only with normal day-to-day activities that involve structured and unstructured play.

At least 2 of our three-person research team were present at all times during the 2 days of observation. Extensive field notes were taken by each team member to document how children interact with their environment and objects in it, including their teacher, peers, and the classroom setting. We were particularly interested in how much time was allotted for play and how much of that time children are able to play in an unstructured way, how the children interacted with each other and with their teachers during these play activities, and whether they showed behaviours related to creative development. With regard to structured play activities we were interested to discover how the tasks were planned and whether children were encouraged to experiment, explore, and allowed to fail in a constructive environment. When observing how children played during unstructured time we were interested in how the children approached activities and how they chose what activities they engaged in. We were also interested in how imaginative these tasks were; i.e. were the children applying creativity skills when they played?

Our field notes were transcribed and compared to analyse the data that we collected and an in-depth case-study was developed to provide an understanding of how play is used in this classroom for learning, how much time is provided for unstructured play time, how children engage with each other, objects, and their teachers during play, and what activities they engaged in during unstructured play of their own free will and how imaginative those activities were. The field notes from each researcher were combined to create a more detailed analysis of the children's actions in the light of the skills, behaviours, and activities related to creative development. Alongside these field notes, photographs were also used to document tasks and to ensure accuracy in how those tasks were represented in our analysis.

3. Observations and discussion

The classroom in which our observation took place was an open-plan learning environment with what appeared to be zones that were dedicated to specific activities. In one zone, several stations were prepared with specific activities where the children were free to engage in these semi-structured tasks as they wished. These included craft, art, or building activities, such as making a paper hat, painting, or

hammering objects together. Another zone contained a 'quiet' reading room with a sofa. There was a zone with a 'kitchen' with toy cooking and dining equipment and another with a shelving unit that contained a selection of toys. The children were also able to play outside where there were various outdoor play objects provided like a sandpit and swings. Figures 1 through 4 provide examples of the indoor activities. Supervisors are stationed both in and outside and the children are able to move freely between indoor and outdoor activities during unstructured playtime.



Figure 1. The classroom was open-plan with 'zones' designated for specific tasks such as painting or crafts



Figure 2. Indoor play area



Figure 3. Example of a building activity



Figure 4. Example of a craft activity

Several times during the day were designated for group learning activities where the children gathered to sing songs, listen to stories read from books, or play learning games. This time is signaled to the children by covering up the activity stations with cloth and turning the light down. Children engage in a large group activity with the entire class and are then divided into smaller groups for more specific learning tasks like reading or learning about reptiles. There are two of these group activities during the day, one in the morning and one in the afternoon, each lasted for approximately one hour. Aside from these more structured activities the children are able to explore and play in the environment as they wish.

The teachers and supervisors monitor the space and the children, providing guidance and ensuring a safe environment. At times, however, guidance can turn into expectation for conventional behavior, which can discourage creative exploration. For example, after lunch a water feature was turned on and the children were allowed to play in it. This is an attractive proposition to young children during mid-day in South Australia, and not surprisingly a group of children were playing together there. But the water also became a catalyst for many other creative activities. While some children hung around the water fountain ‘socialising’, others came to get water then went off and did something with it in another part of the playground. For example, watering the play equipment, mixing the water with sand to provide a more stable consistency allowing them to build a structure of some sort. Whatever the fascination was for each individual with the water, this one element stimulated group interaction and exploration: ‘look at what’s happening when I splash me, or you. I can throw water on you and I’ll get a response’. However, the supervisors tended to consider some behaviour as disruptive rather than exploratory and discouraged it. The children were regularly told not to do something with threats that the water would be turned off if the behaviour persisted. When the water was inevitably turned off, cooperative play between the children ceased and they became more (traditionally) ‘disruptive’ by throwing wet sand at each other. Shortly after the water was turned off the sand pit was also evacuated and labelled as off-limits. When asked why the water was turned off by one of the research team, the supervisor said ‘Oh, no, they [the children] get too wet’. What is outside of the scope of this study is when and how children are disciplined in the classroom. Clearly, not all actions are appropriate, but the issue under discussion here is to consider that the balance between appropriate discipline and the stifling of creativity as a result of blind adherence to convention may be out of balance. It is our aim to draw attention to the value and need for creative development but by no means do we suggest that boundaries should not be maintained.

When engaging in a new activity the children were often observed mimicking each other or observed adult behaviour. In some of this behaviour you can see adult influences and the way that interaction may be expected to be directive, rather than interactive. Changes in the behaviours and interactions between children can be observed when they play in what they perceive to be unsupervised. At the painting station the children engage in discussion about what each other is creating. One child makes an astute observation about how she can paint twice as much because she is using two brushes at the same time. When a teacher comes over the children end their discussion with a quick ‘I’m

finished'. They are then told to put their name on their work, further finalising the end of this activity. In response the children wander off.



Figure 5. Children building a 'road' from wooden blocks. At first their solutions is expected from what they likely observe quite regularly, but this changes to become more novel over time



Figure 6. Detail from 'road' showing example of sunken ramp

With time and undisrupted play, mimicked behaviour quickly started to shift into more novel activities and more imaginative activities began to emerge, especially when there were not any adults present. For example, we observed two children, a boy and a girl, playing with timber building blocks. They began by laying the shapes interlocked like the bricks forming a walkway, a typical, and perhaps, expected pattern. One that likely has been observed on several occasions. At first the children seemed to be driven by the 'rightness' of the process and the pattern they were creating. The boy, who had taken the lead, was determining the pattern and the girl was describing the process out loud, but was less active in the actual laying of the blocks. A third child, a boy, walked into this activity with plasticine and

began to creating a more three-dimensional structure but one that still did not deviate in other fundamental ways from the established pattern. With this addition of the plasticine, however, the first boy was inspired and then began to introduce other elements into the pavement pattern like plastic toy cars, trees, etc. A fourth child, a boy, joins this activity and adds a structure of a sunken road with negative spaces and ramps, which created a radical departure from the platform already established. The girl then begins to adapt the moving parts on the ramp to suit the vehicle she is playing with. The fourth boy now adds archways and more 3D structures, which begin to demonstrate greater adaptive, creative qualities, and a willingness to explore the potential of the shapes to be used in other less predictable ways. See Figures 5 and 6 for an example.

At one time during the day the children were asked to go to the washroom to clean their hands. This activity was quickly recognised as an opportunity to 'paint' the mirrors behind the washbasins and then the wall with their soapy hands. Once one child started doing it the rest quickly joined in. For the children there was no evidence of evaluation as to whether this was 'correct behaviour' nor was there what appeared to be sense that they needed to be self-conscious about their behaviour and edit themselves to stop what they were doing because it was 'wrong', 'messy', or 'undesirable'. Rather, this group seemed to only concern themselves with ideas such as 'this looks like fun, let's see what happens'. Having observed this they began to stretch the possibilities of making different marks by movement, flicking or throwing the soapsuds and so on. They began to see what happened when they 'painted' other things, themselves, faces, arms, clothing (most were wearing pinapores which may have enhanced their feeling of freedom to do so) and then the walls. It was also interesting to observe that these children were not concerned with messiness and that they were engaging with materials in a non-traditional manner, i.e. painting with soap rather than pigment, onto a mirror rather than paper. As adults, upon walking into a washroom with marks on the mirror we might assume that perhaps one of the children 'accidentally' left a handprint there, but still noticed that the mark had an interesting character and quality, and that the mirror added to this by creating a reflection of the mark that you could both see the mark and yourself through. As adults, we may find beauty in this but nonetheless clean off the marks and discourage their reappearance. This 'correctness' of behaviour is established by convention and, it can be assumed, is then passed down to our children (e.g. in an effort to show manners and polite or respectful behaviour). Whereas, adults are more likely to be constantly evaluating their behaviour for appropriateness and to stop and judge their actions,

children likely have not yet developed this restrictive and self-conscious mechanism, which may contribute to more spontaneity in their play. To address any concerns of those troubled with the worst-case scenario, we are not suggesting a complete lack of boundaries in all contexts. The same unchecked curiosity that fuels creativity which children naturally possess and adults struggle to allow themselves can lead to less desirable results. ‘This looks like fun, let’s see what happens’ may not be wise near a busy road or with sharp tools, so in the grand scheme of things the challenge is to allow children to engage in creative exploration and creativity skills but those should be combined with wisdom. Of interest to this study is the classroom and creating within it an environment where it is both appropriate and fertile for creative activity. It is this exploratory approach to play that can lead to novel discoveries and solutions and encouraging rather than restricting and correcting this behaviour is more likely to benefit creative development.

Perhaps what children naturally do is explore and experiment within their environment. Educationally, human beings of all ages learn better through experience and finding out things for themselves than by only having that action explained to them. It has been observed that a young animal’s ‘play’ develops the skills that they will need as adults: strength, agility, speed, social order, and so on. In much the same way, it is likely that children are learning about the nature of their environment, culture, and social relationships through unstructured play activities. The purpose of engaging in this type of play may be to experience and test these boundaries. This approach to finding out what happens and what is possible is a characteristic of creativity. Unfortunately, boundaries are often established too narrowly and these activities are discouraged more than encouraged.

4. Conclusion

Creative activities are linked to exploration, curiosity, independence (in thinking and behavior), risk taking, willingness to experiment and make mistakes, and can lead to the development of a positive self-image in general. It is essential that these skills are related to creative development, that children naturally engage with them, nurtured, and seen as necessary to development as children become adults and live in societies that are unimaginable for us today. Overall, we observed plenty of behavior that is linked to creative development. The children collaborated with each other and set their own rules for specific games they were playing, and they readily engaged in exploratory and experimental behavior. This was more apparent when they were playing in parts of the learning environment where there was no immediate engagement with a

supervisor. When adults were present, the behavior of the children took on more expected and less imaginative traits. This could be a result of a need to please and be accepted and/or of cultural conventions imposed by adults who are charged with teaching these children. The environment in which these observations took place was designed to encourage play and interaction between children and with its design it appears that the value of play in learning and child development is seen as a priority. However, even with all the possibilities available to children in such an environment, with toys and activities that provide a range of play opportunities, is it possible that expectation about play and interaction ever fully disappear?

During our observations we became interested not only in the issues stated above but also in how the children interact with the environment and whether a truly unstructured ‘environment’ can be provided for children to develop creatively. This idea of an ‘environment’ includes the area provided in which children can explore, the objects within that space, and the adult supervision necessary to ensure that no child seriously harms themselves. Very understandably parents want their children to be ‘safe’, but this can mean that safety takes an undue priority over everything else. This often leads to the avoidance of any opportunity to take physical risk for fear of some level (even very small) of ‘discomfort’. Risk taking is an essential part of creativity and creative development. Trying something that is new or has an uncertain or unknown outcome can be ‘scary’. The way that kids love to be scared, by stories, by their imagination, by taking physical risks indicates a natural affinity for creative risk taking to see how far they can go and to discover what is possible, and by doing so learn what to do and what not to do. Perhaps a cue can be taken from Edison, who famously made not a thousand mistakes when attempting to create a filament for the light bulb, but rather discovered a thousand things that did not work.

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