

## Phenomenon Based Learning Implemented in Abu Dhabi School Model

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### Abstract

“Tell me a fact and I’ll learn. Tell me the truth and I’ll believe.  
But tell me a story and it will live in my heart forever.”

**Indian Proverb**

The aim of this case study was to find out whether PhenoBL (Phenomenon-Based Learning) approach connected to storytelling has a positive impact on the reading skills and on the students’ motivation to read. The key method in delivering ADSM curriculum with a holistic, cross-curricular approach was built on stories. The classic children stories were chosen after a thorough review of the themes and outcomes of ADSM curriculum. The outcomes of all subjects were taken out and combined according to different stories to build a holistic picture. The teachers have a Finnish teacher education background which gave the possibility to combine the best practices from Finnish Educational Approach to learning and from ADSM (Abu Dhabi School Model).

The reading progress was screened with the Running Records assessment tool in the beginning of the terms one, two and three. The results can be described promising. Significant improvement in reading skills could be noticed with the entire test group. Forty-four out of 147 Emirati students (30 %) reached the international level and even the level above their age range in reading during the two terms. This article will describe how the Storyville project was conducted, what were the benefits and challenges teachers faced and how students’ reading was improved during these two terms. The overall benefit of this project can be seen in students’ increased motivation to read and learn through the stories, in parents’ satisfaction and in teachers’ collaborative enthusiasm to create meaningful learning with a PhenoBL approach for the students.

**Keywords:** Phenomenon-Based Learning, cooperative planning, Abu Dhabi School Model, cross-curricular approach, curriculum delivery, Finnish approach to education, storytelling Implementing Abu Dhabi School Model

### Introduction

Abu Dhabi School Model (ADSM) started as New School Model (NSM) in 2010. The Abu Dhabi Education Council (ADEC) defined a set of learning standards and outcomes for subjects for the curriculum. The Arabic and English languages had a dual focus in the curriculum. (ADEC 2012). The aim was to standardize the curriculum delivery including pedagogical

methods to support 21st-century skills across all ADEC schools. The key understandings of ADSM are: all students are capable of learning and the teacher is responsible for student learning. (ADEC 2012).

Teachers are responsible for using student-centered approaches, continuous assessment, and differentiation for students to reach all learning outcomes. A variety of teaching and learning resources should be used in a way that facilitates active learning and an inquiry-based environment. (ADEC, 2015).

Curriculum delivery, how teachers teach or deliver instruction, is hardly new, but conceptualization of the way teaching and learning strategies are and how we define the terms remains ever changing. “What” (the content) is taught and “how” it (the curriculum) is taught depends on the setting, the needs of the learners and, to some extent, teacher preferences. The main point is that the responsibility for delivery of the curriculum belongs to the teachers. (Eränpalo, Jorgenson & Woolsey, 2016) In this setting, we should address curriculum delivery as a school-based curriculum. To empower teachers to take the professional responsibility of the curriculum delivery at the school level can be seen as a tactic to permit teachers to adapt system-level policies into school-level actions. Sahlberg (2012) points out that having the school-based curriculum teachers and administrators can formulate the values and goals of their schools established on their professional judgment in respect of the input of parents and the community. Sahlberg & Hajak (2016) believes that Big Data alone won't improve educational systems. Decision-makers should define what leads to the better learning in schools. Recognizing Small Data such as relationships and narratives in schools can reveal important clues how to improve education.

ADSM curriculum is outcome based, which makes it quite fragmented. Each outcome is basically taught only once per school year. Teachers need to proceed rapidly into the next outcome having never time to revise or deepen the learning. Acknowledging this, teachers of Al Raqiah School took their professional responsibility to create the curriculum delivery with a new approach.

Given the opportunity to develop teaching and learning in line with the cross-curricular approach the grade two teachers in Al Raqiah School started to innovate a new way of conducting ADSM in respect of the outcome-based curriculum. Since the cross-curricular approach to learning is emphasized in Abu Dhabi School Model (ADSM) the solution was found in Phenomenal Education.

The starting point for learning in Phenomenon-Based Learning relies on a holistic, real-world phenomena that are studied as complete entities and by crossing the boundaries between subjects. The key requirement for learning process is authenticity. PhenoBL is not built on a strict set of rules. The essential part of the process is student's active role in creating an understanding of the phenomenon. (Silander, 2015; Zhukov, 2015). In contrast with passive, rote memorization curricula of the past, PhenoBL actively involves students in hands-on activities aimed at answering questions and solving problems. (Dougherty, 2015). Also Tough (2016) supports the idea of increased emphasis on experiential learning and student autonomy to enable deeper learning to appear. The more in-depth learning the abler the students will become in bridging the gap between the different subject areas (Al Kilani, 2016).

PhenoBL enhances 21st-century skills improving students' critical thinking and creativity providing possibilities to refine communication, collaboration, and game-based learning. (Zhukov, 2015). This statement is also supported by a two-year research study that introduced Dynamic Problem-Based Learning in Chemistry run by the researchers at Hull University.

Positive results were found especially regarding skills development, critical thinking, and engagement. (Dougherty, 2015). Four major advantages of PhenoBL them being cross-subject lessons, holistic approach to learning, enquiry-based learning, and group learning. Furthermore, he finds that in PhenoBL students are not passive recipients of lessons, but proactive participants, contributing to and learning from the topic. (Rahaan, 2016). Media has given a lot of attention to Finland's expansion of PhenoBL approach. The latest core curriculum that was taken into practice 2016 requires teachers to include at least one topic a year for every student to be conducted according to PhenoBL approach. Innovative use of technology and exploiting learning environments outside the school play a significant role in activating and engaging students in learning. (Spiller, 2017; Uudet opetussuunnitelmat pähkinänkuoressa, 2016)

A cross-curricular approach to delivering curriculum is based on collaboration. Teachers are encouraged to engage in joint planning and co-teaching to facilitate the learning of concepts and skills across subject areas to provide additional language development support. To enable teachers to practice collaborative working methods there is a need for timely and supportive resources. Walther-Thomas, Bryant, and Sue (1996) divide these assets into three levels. First of all the district-level planning (that could be referring ADEC level in our case) should provide a districtwide design of broad expectations, confirm resource allocation and timely resources for collaborative staff development. Building-level planning ensures administrative participation and ongoing co-planning possibilities for designing long-term and short-term plans for instruction. The third one is classroom-level planning. Ongoing team planning has been found helpful for building mutual understanding in co-teaching relationships, communication, and problem-solving and for monitoring the progress.

To succeed with collaboration there are several elements that need to be in place. The positive interdependence is the most important element. The group members must acknowledge that one cannot succeed unless everyone succeeds. Accountability requires each member to contribute her share of the work. Promotive interaction is actualized by helping, supporting, encouraging and praising each other's efforts. The fourth essential element is the requirement of interpersonal and skills to work in groups. For fruitful collaboration, the group members need to be able to lead effective decision-making and to create a trustworthy atmosphere for smooth communication and effective conflict management. (Johnson & Johnson).

The results of the study conducted in ADEC schools in 2015 (Al Dhaheri 2015) showed that teachers' membership exists in ADEC schools and teachers have opportunities to set their own goals and actions. Teachers were satisfied regarding their opportunities to share vision and values. The aim of collective learning is to establish trust among peers and develop the desire to success as a team through collaboration and shared goals and values. Additionally, involving personal practices in the learning community allow educators to set and implement personal and professional goals in their work. Also, Sahlberg & Hasak (2016) have indicated that teachers should be liberated from bureaucracy and be given opportunities to invest in collaboration with colleagues in schools. Enhanced social capital is proved to demonstrate a vital aspect of building trust for mutual understanding of education and for improving students' learning.

The key tool in delivering ADEC curriculum with the cross-curricular approach in our project is stories. Both in UAE and in Finland, we have a strong history of storytelling. Folk stories have been passed forward from generation to generation around fireplaces of crofts and campfires of Bedouins. Friday (2014) emphasizes storytelling to be the oldest method of teaching. The stories united the early human communities and gave answers to the major questions of life. They moulded and cultivated people. Even if every human culture isn't literate, they all tell stories. The major benefit of using storytelling as a teaching method is the way it engages learners in different levels. It is not only a natural and effective approach to learning but also an excellent

way of retaining the information. Storytelling proves to be an active method of coding knowledge. The stories can be memorized easily and passed on to the others. The emotions that the stories evoke seem to play a major role in students' retention of the story and the lesson impeded in the story. (Eck, 2006).

Stories engage students with its narratives and invite them to reflect the stories of their own experiences. Students may find similarities with the story characters and plot twists compared to their own life. These identifications are the reasons for engagements. Students elaborate the stories by finding comparisons and associations to the real-life. It is important to acknowledge that the associations are activated by anticipating of what is happening next in the story. (Branaghan, 2010; Green, 2004).

## **Method**

### **Participants**

This case study was conducted in Al Raqiah School, an ADEC school in Al Ain during the academic year 2016-2017. The school has been part of EPA (Education Partnership Agreement between Edu Cluster Finland Ltd and ADEC<sup>1</sup>) project from 2010 to 2017. The project developed best classroom practices with a focus of transferring them to the other ADEC schools. Al Raqiah School is a Cycle one school with grades 1-5. The research was piloted in six of the grade 2 classes, having 147 Emirati students, in a cycle one school.

### **Design**

Five EMT teachers created a Storyville project for grade two students targeting to increase motivation to read, improve students' reading skills and to deepen the learning of outcomes by cross-curricular revision. Following PhenoBL approach, the learning of the whole academic year was built on 12 different stories. The classic children stories were chosen after a thorough review of the themes and outcomes of ADSM curriculum. The outcomes of all subjects were taken out and combined according to different stories to build a holistic picture.

The students' reading skills were examined in the beginning of the academic year and at the beginning of the terms two and three. The aim of the study was to describe how the PhenoBL approach was conducted and what were the benefits and challenges. We also wanted to see whether this approach improved students' reading skills and increased students' motivation to read. The following research questions were investigated:

1. How can the PhenoBL approach be implemented in ADSM?
2. What kind of progress could be seen in students' reading skills?
3. What are the benefits and challenges in the implementation of PhenoBL approach in teaching and learning?

This study employs qualitative methods to investigate how the PhenoBL approach can be applied within ADEC curriculum. To fully understand the implementation of the PhenoBL approach with ADEC's outcome-based curriculum, grade two teachers participate in two-phase data collection survey. The feedback from the grade two students' parents was gathered to form a complete understanding of the benefits and challenges of this approach. To answer the research questions, the data was examined through qualitative analysis design. Students' reading skills were screened in the beginning of the academic year with Running Records Assessment tool. To see the progress students are making, these results were compared with the results from

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<sup>1</sup> The EPA has been created to fuse Abu Dhabi and Finnish education designing and trials of different delivery methods in the ADEC curriculum. (<http://peda.net/veraja/ecfi/epa/project>).

the beginning of terms two and three using the same assessment tool. The research procedure and all test results have been dealt discreetly. Neither students', teachers' nor parents' individual information was revealed.

The design of the study can be seen in the framework presented in figure 1.

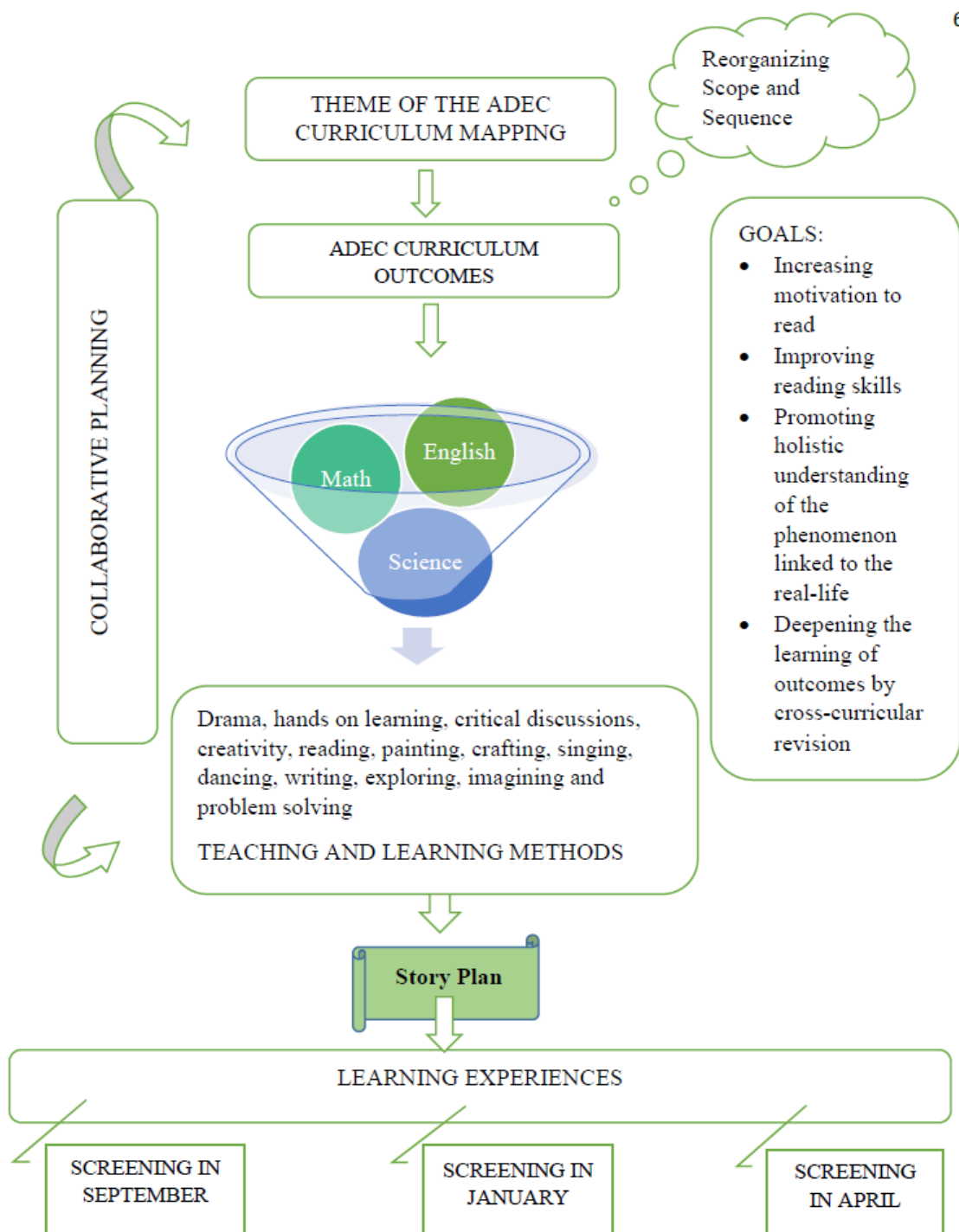


Figure 1. Framework of the study: PhenoBL Approach implemented in ADSM

## Results

### *How can the PhenoBL approach be implemented in ADSM?*

To avoid fragmentation of the outcome-based curriculum the teachers decided to try out a new approach to curriculum delivery. They ended up with the PhenoBL approach implementing that in ADSM. They started with piloting a project for a period of three weeks during the academic year 2015-2016 with our first graders. The story 'Cat in the Hat' was explored and connected to all subjects. Students studied rhyming words by versatile methods combined with games, memorizing, and reading methods. They studied patterns in Math inspired by the striped hat of the Cat using art and handicrafts. They explored the Science topic of using five senses through the story thinking which sense is used in each incident of the story. The crown of the project was an art exhibition, a visual story reading experience made by the first graders. The visitors could walk through the story reading it from the walls and enjoying the art. It was a huge success. According to Dougherty (2015), the similar way of addressing PhenoBL approach can be found in New Zealand school's where they are incorporating music and art into the eight projects that students are required to complete per semester (from STEM to STEAM).

The inspiring results of this pilot encouraged teachers to revise the way of planning the learning for the following academic year. Teachers wanted to see teaching and learning as big entities rather than separated subjects and they wished to provide a totally new way for the children to learn and to raise their motivation to the next level. Storyville project was built on 12 different stories following PhenoBL approach. The classic children stories were chosen after a thorough review of the whole year outcomes respecting the themes of ADSM curriculum. The outcomes of all subjects were taken out and combined with different stories depending which ones related naturally to the story.

The focus was mainly in the Math and Science outcomes since most of the English outcomes could be taught with any of the stories. Clear connections between Math and Science outcomes were found. As a result, the outcomes were divided between the terms in a whole new way. The purpose of integration of suitable outcomes was to create natural possibilities for revision and real life connections.

The outcomes of different subjects were chosen so, that the outcomes of each separate subject supported and deepened the learning of others. The fragmentation was minimized and the revision maximized in a way that the children did not necessarily know that they were revising something. Certain English outcomes could be revised in a Math lesson or a Science outcome in an English lesson. The boundaries of different subject names were gently pushed down to make way for more efficient theme based entities. The Scope and Sequence were reorganized to support deeper learning and cross-curricular revision. (See Figure 1.)

The story content and plot had always an educational meaning. For example when students were studying measuring length and volume in Math and natural materials in Science the story was 'Goldilocks'. It was easy to connect to measuring the furniture and containers of different sizes and volumes and to talk about and investigate from which materials they are made of. Learning took place using multiple resources and methods like drama, hands-on learning, critical discussions, creativity, reading, painting, and crafting, singing, dancing, writing, exploring, imagining and solving problems.

Teachers estimated the basic planning of the project took approximately three weeks at the end of term three last academic year and two days of the PD-week in the beginning of the academic year 2016-2017. As for the consistent planning during the academic year teachers used approximately four to five hours weekly to the project planning. In the beginning of a new story, the demand for planning increased extremely. Beside this teachers had a joint planning period embedded in their timetable.

***What kind of results could be seen in students' reading skills?***

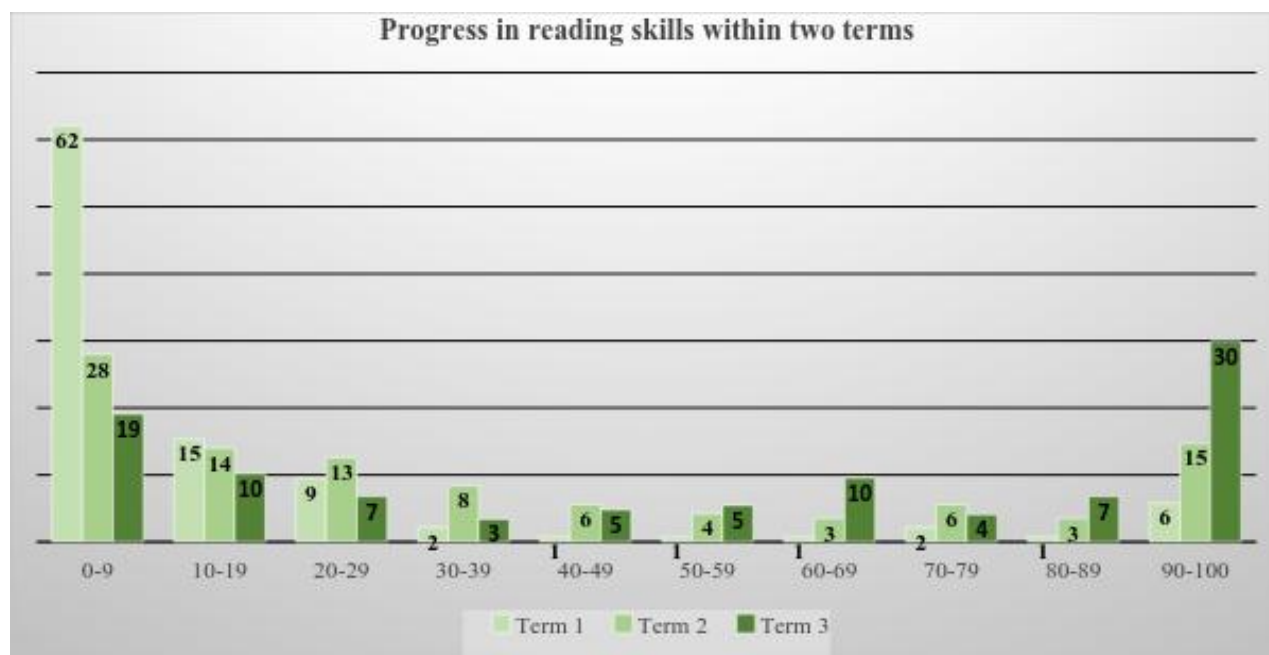
The schools are repeatedly facing a challenge with students' reading skills once they enter grade three and try to cope with the outcome expectations. Achieving the learning outcomes of the third grade Math, Science, and English, curriculum demands fluent reading skills in English. One of the aims of the Storyville project was to make an intense change in the way reading has been taught in our school. The focus needed to change into reading comprehension, making the students realize why they need to learn to read. The process of technical, sound based reading teaching was speeded up to release time for the meaningful and motivating reading experiences. Instead of using many hours a week in practicing how to read certain sounds or double sounds, the focus was placed on reading whole meaningful, story based words. The weekly spelling tests with unconnected, sound based words of the week were cancelled. Instead, the spelling words from the grade two high-frequency word list were chosen with the connection to the theme story contents or to the contents Math or Science outcomes of the week. There was a clear association between learning to read the words of the week and learning other things. The focus on the tests was changed towards comprehensive reading. Right from the beginning of grade two, it was emphasized to the students that one reads to get information, to understand and to learn, not to succeed in the spelling test.

Students started to read more books; whole books, even small ones at the beginning, instead of separate words. Integrating learning contents into the theme stories opened the students' eyes to see, how much one storybook can teach them. How much is hidden between the lines of one book? The Storyville project motivated the children to read at home and at school even aloud in front of the class. In the Math and Science lessons, the students read the task instructions and acted accordingly. In the free writing lessons, the students used dictionaries to find ways to express themselves. This has increased their vocabulary and made the essay writing more exciting.

*PhenoBL approach inspires students to figure out how topics are related to each other. The motivation for reading has increased tons. Students have realized why reading is important! They have found the miracle world of books, stories, and fairytales. (teacher 3)*

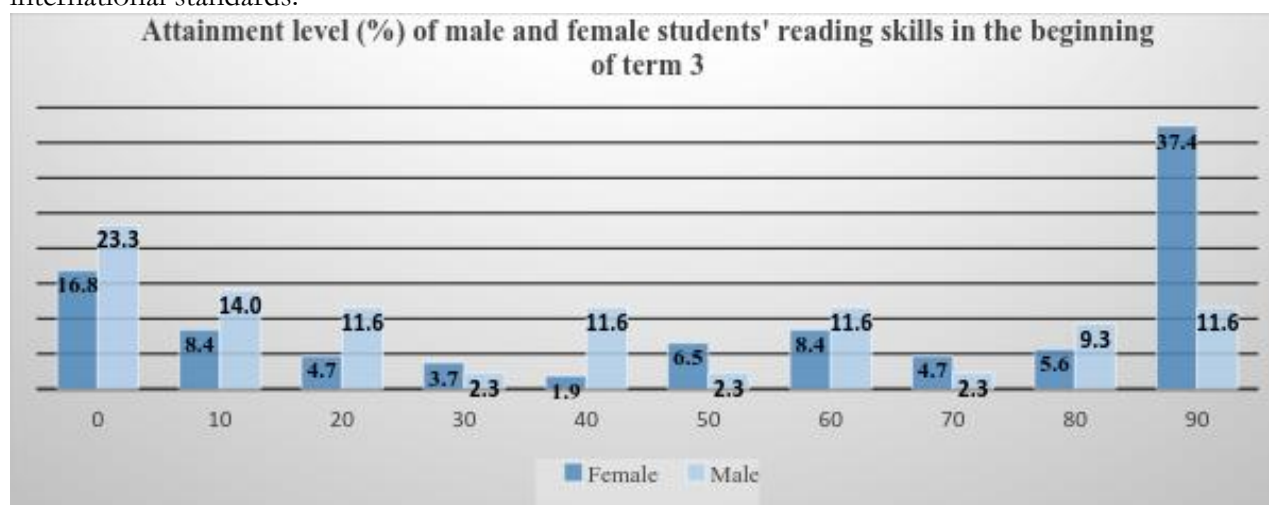
Students' reading skills were screened with Running Records in the beginning of the term 1. The same procedure was repeated at the beginning of the term two and three to find out whether there had been progressing. Running Records gives a detailed analysis of literacy growth when used systematically and accurately. Teacher registers child's reading using specific standardized codes resulting in a record that reveals the smallest details on the reader's attitude, demeanor, accuracy, and understanding. The number of errors is subtracted from a number of running words in the text. The qualitative information and the student's comprehension level are combined with the calculated rates to determine students reading level. (Learning A-Z, 2017). The text is at the student's independent level if she manages to read the text with 95 % or higher accuracy level. The accuracy of 90%-94% indicates the text is considered to be at child's instructional level. Lower than 90 % accuracy level is regarded be too difficult for the student. (Learning at the Primary Pond, 2016).

It is important to acknowledge that Reading A-Z Levelling Criteria are made to measure native English-speaking children's reading skills. However, the Running Record reading results in this article are showing the progress of the non-native English speaking Emirati children's reading skills at the age six to seven.



**Figure 2. The progress (%) of reading skills on the Running Records' accuracy levels (0 – 90) in the beginning of each term.**

The progress of individual students' reading can be verified in figure 2. In the beginning of term 1, only 6 % of the students could reach the accuracy level of 90-94 % which indicates the text is considered to be at child's instructional level. Sixty-two % of the students could have been regarded illiterate according to the Running Records test. The last Running Records test was conducted at the beginning of term 3 which revealed significant progress in reading skills within two terms. Thirty present of the students had reached the demanded accuracy level related to the international standards.

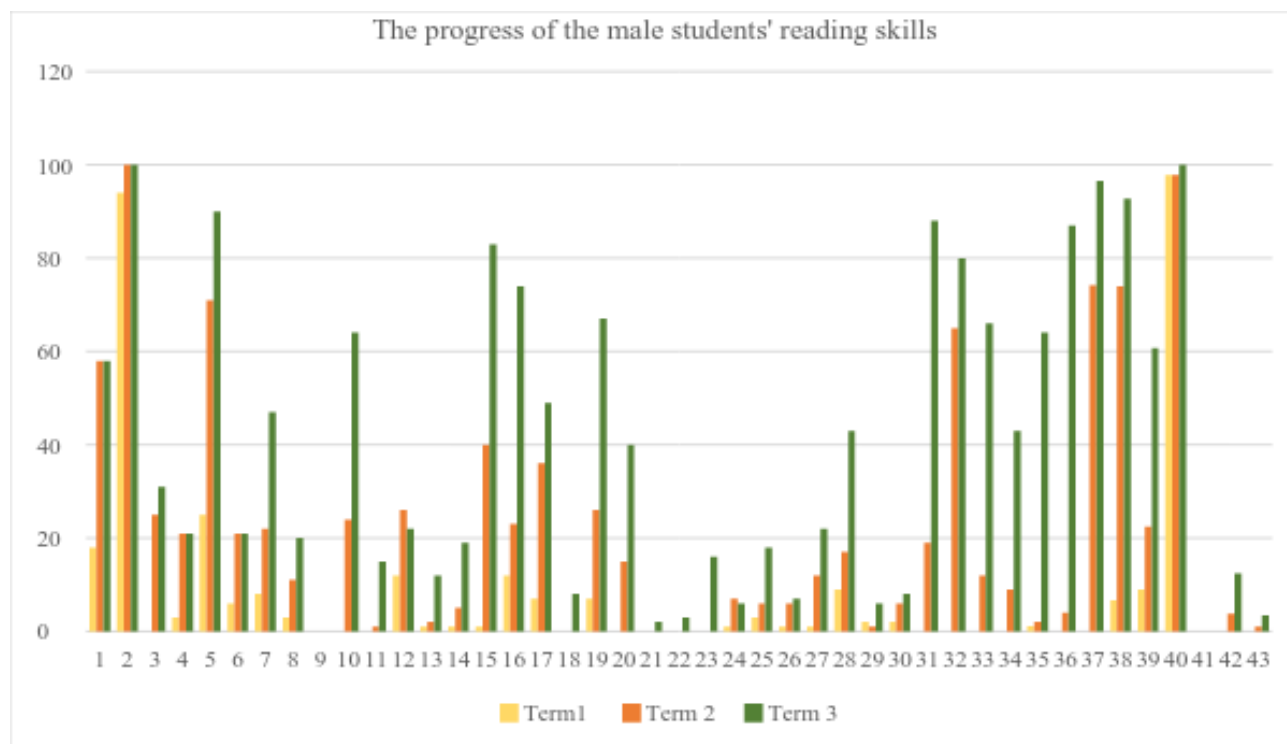


**Figure 3. The difference between female and male students in readings skills in the beginning of term three**



When we take a closer look at the differences between male and female students' results (see figure 3) we can notice that female students tend to progress faster in reading skills than the male students. However, there can be found a significant progress in male students reading when the individual students' progress is studied carefully.

Figure 4 presents the progress of reading of the 43 male students in grade 2. The green bars state the level of reading at the beginning of term 3 which in most cases shows excellent progress.



**Figure 4. Male students progress in reading**

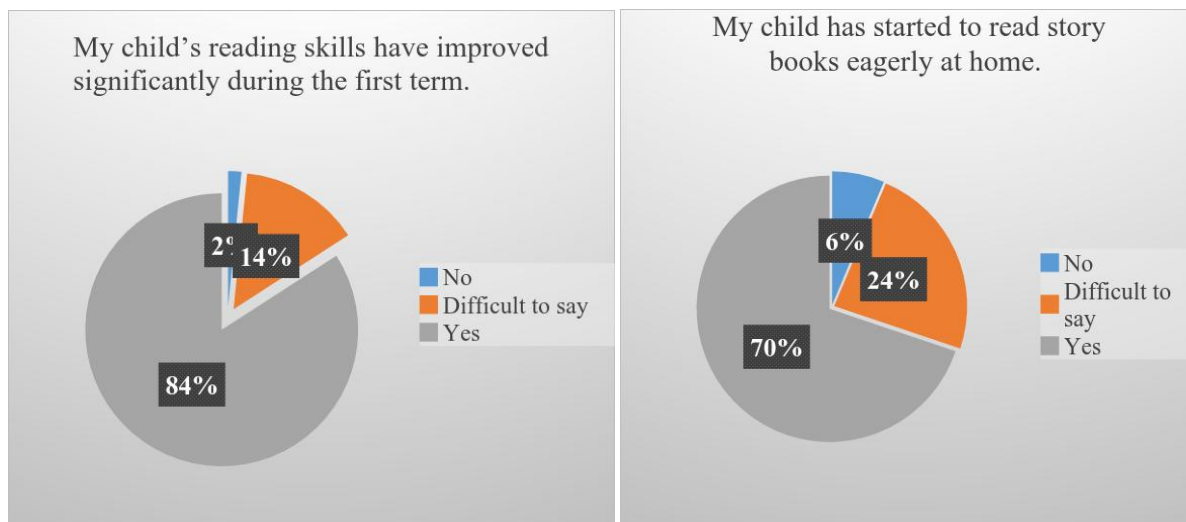
All of the students who reached over 90 accuracy level, were given a higher level text to scaffold child's real reading level. The reading texts were levelled in an accelerating rate. Students who read at the Level G could be compared to be reading as native English speaking 6-7 years old children. At the Level, J students read as well as 6-8 years old native English speaking children. In the levels K - P the text is getting a bit more challenging in each step regarding the vocabulary, the length of the words and sentences. These levels can be compared to the reading levels of 7-8 years old native English speaking children. Table 1 demonstrates the process of reassessment of the students who succeeded over 95 % with their reading. In this particular class, nine students were tested repeatedly to find the highest level of text the child could read fluently with a clear understanding of the content. These nine students read above their age-level according to the international reading standards.

**Table 1. An example (one section of the six classes) of the process of reassessing reading levels of the students who reached over 95% with their reading**

Student	Term 1	Term 2	Term2	Level G	Level H	Level I	Level J	Level K	Level L	Level M	Level N
1	16	33	58								
2	27	100	100	65							
3	4	47	60								
4	0	0	0								
5	28	84	94								
6	20	98	100	90	74						
7	2	33	63								
8	38	97	100	73							
9	38	70	96								
10	100	100	100	92		96	96		91		
11	87	100	100	91			90		92	90	
12	99	100	100	96			95		95	95	95
13	6	24	24								
14	24	98	100	84							
15	0	33	55								
16	8	33	37								
17	40	100	100	91			92	91			
18	18	58	58								
19	94	100	100	91			96	92			
20	0	25	31								
21	3	21	21								
22	25	71	90								
23	6	21	21								
24	8	22	47								
25	3	11	20								

Parents were sent a questionnaire to find out their discovery on their children's improvement in reading. The total of 44% parents participated in the inquiry. 75 % of these parents declared they were aware of the Storyville project.

The total of 84 % of parents who participated in the inquiry felt their children's reading skills had improved significantly during the term one. It is inappropriate to conclude that the improvement in reading skills would be merely due to the PhenoBL approach. However, the project and renewed teaching methods surely have a great impact on the progress.



**Figure 5. Parents' satisfaction on their children's improvement in reading and their notification on their children's willingness to read books at home.**

It was satisfying to find out that 70 % of parents that participated in the inquiry reported that their child has started to read story books eagerly at home.

*My daughter wants to read any words in the street. (mother 24)*

*The results of my daughter have progressed distinguished and this is because of the brilliant efforts of the teacher and the school system. (mother 2)*

*I would suggest that it would be possible to teach a different story to the students every week for the development of reading skills. (mother 19)*

*Please, add English language stories! (mother 26)*

In the questionnaire, parents were able to give their contact number for further discussion. Three mothers were interviewed in Arabic. When asked what had been their children's feedback about the reading project, the response was very promising.

*Our daughter is very happy about this project. She was telling me (her mother) about what she read at school directly when she was back home from the school. She was telling a lot of details about the characters and events happened in the stories. (mother 2)*

*Our son started to create his own stories and telling me (his mother) about it. (mother 19)*

For the next step parents suggested that our school should increase the number of books available for the students and activate the borrowing system in the school library. They appraised teacher's professionalism and hoped the same teacher would continue with the same classes in the following year applying the project at the school-wide level. Parents also were looking for the continuation of effective home-school communication and requested us to reward the students to encourage them to achieve more. Most parents seemed to be happy with the reading project and their children's learning to read. The request for having more stories to read can be met with the new A-Z program that ADEC provides us since there are more than 2000 English stories available online for the students.

### ***What are the benefits and challenges in the implementation of PhenoBL approach in teaching and learning?***

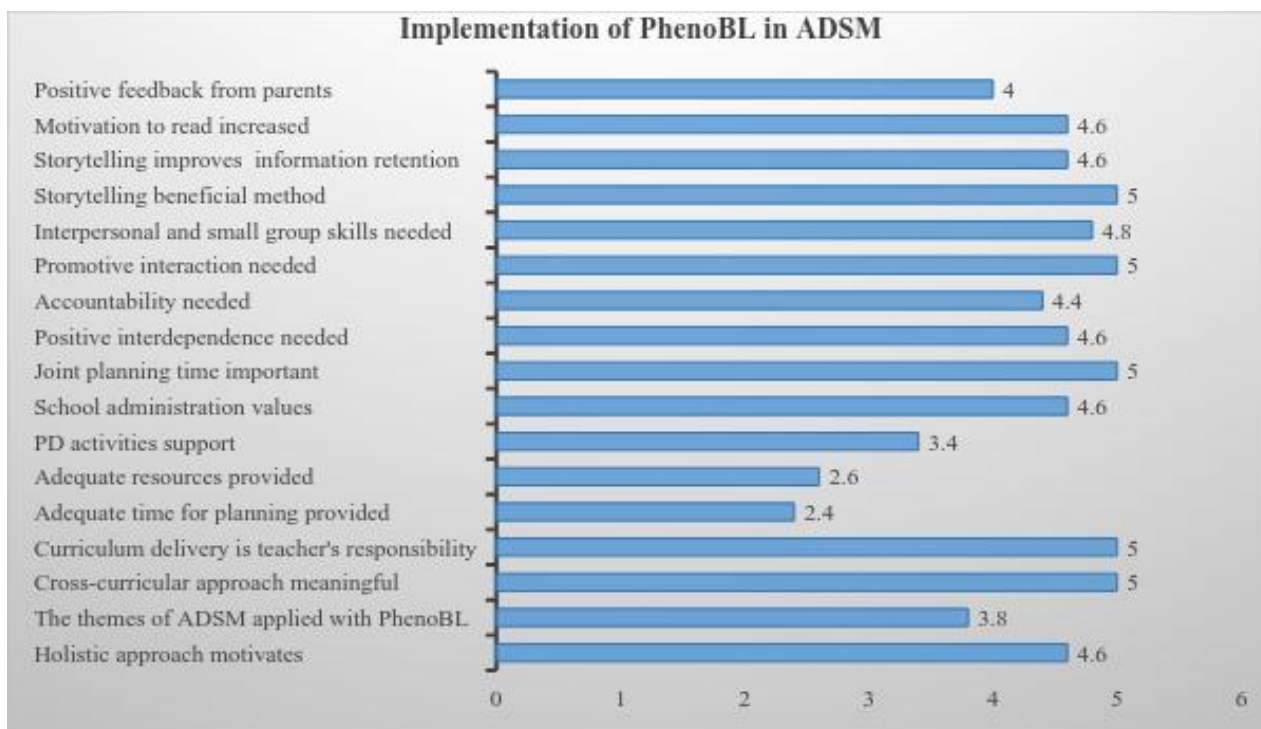
The teachers were questioned of the benefits and challenges in the implementation of PhenoBL approach in teaching and learning (see Figure 6). If we look at the evaluation of the statements we can notice that every one of them found storytelling a beneficial method. The teachers agreed with Friday (2014) who has stated that storytelling promotes the enthusiasm for reading and increases students' purposeful talking. Mutual understanding was found also in the finding of students' increased willingness to write stories and improved listening skills

*It is motivating for the teachers and students. Students are quite excited always when the new story is announced. The topics are revised in different subjects and it helps the students to understand the topics. Their vocabulary grows easier and wider. (teacher 2)*

Teachers found it meaningful for the students to study phenomena as complete entities by crossing the boundaries between subjects. All of the teachers agreed that to succeed with PhenoBL approach promotive interaction is needed which is actualized by helping, supporting, encouraging and praising each other's efforts.

*It (PhenoBL) gives the impression of having more time to concentrate on the most important topics. It gives possibilities to revise and constantly emphasize the cornerstones of the curriculum. Students are more motivated to learn while issues and topics are related to something they are already familiar with. It seems to be easier for students to follow their own development. (teacher 3)*

*The implementation of PhenoBL approach has promoted students' critical thinking, group work skills and motivation to read. As for teachers they have benefited with the deeper understanding of the outcomes and realizing the connection between the outcomes and the real world. (teacher 4)*



**Figure 6. Implementation of PhenoBL in ADSM according to the teachers' inquiry**

They all found joint planning time as an essential component. They all also pointed out the time they have had for joint planning hasn't been adequate.

*The long-term planning turned out to be the most vital part of planning. Having enough time and resources for the planning process at that point is the main cornerstone in order to reach successful results. Being able to concentrate on planning with peers for the whole days is important. (teacher 3)*

*It requires a lot of advanced planning ahead and good knowledge of the curriculum. In the beginning of the project, it is very time consuming if done properly. It also requires more differentiation than the normal, outcome based teaching. (teacher 1)*

*Needs time to collect, produce, read and evaluate materials and plan activities to be used (books, worksheets, hands-on activities, group works, outside game activities etc.) (teacher 5)*

Apart from the lack of planning time the other concerns teachers shared were a deficiency of adequate resources for curriculum delivery and the use of PD activity sessions. These requests can be respected by the school administration when notified in time.

*It is time-consuming to find/create materials that match with the theme. It requires more creativity and in order to be creative, you should have enough time. (teacher 2)*

When teachers were asked whether the Storyville project matched up their expectations the results turned out to be promising. The teachers had a mutual strong feeling of success when describing their reflections.

*Beforehand I did not expect that reading skills could improve this much. The joy of learning and motivation of students have also appeared to grow more than I expected. (teacher 3)*

*In some parts, it has exceeded my expectations. (teacher 4)*

*It has been a good project but still a lot to improve to make it more holistic and phenomenal based. (teacher 1)*

The teachers praised the project to have promoted their professional growth.

*I have understood how nice, useful and better it is to plan together. It makes this demanding job easier and more fun. I have gained self-confidence. I have fallen in love with our stories and want to do this again. (teacher 2)*

*The level of teaching has improved. I have worked a lot but with pleasure. The Storyville project and the cooperation experience with grade 2 teachers have kindled and increased enthusiasm to teaching and developing higher and higher. (teacher 3)*

*It has been a good motivation boost and also it has given me more confidence to do things my own way and to believe in what I do. (teacher 4)*

Having a special project has also had a positive effect in group forming and cohesion of classes. Their motivation to read and learn has had a positive side effect of wanting everyone else to be able to enjoy the same feeling. After the students finished their work they automatically moved on to help the ones not finished yet. This, peer support, has been a great help for especially the weakest students. Sometimes the child of the same age and the same mother tongue can find better ways to explain a new phenomenon, than a teacher.

## Discussion

The Storyville project was a whole new way of looking at the ADSM Curriculum. It was an attempt and a pilot to make curriculum delivery more cohesive and efficient. The curriculum of ADSM is outcome based, which easily makes it fragmented. To avoid that to happen and to improve students' engagement in learning teachers used PhenoBL approach successfully to support students' learning.

The curriculum delivery in a new, meaningful way was empowering the teachers who participated in this research. Teachers in Finland are regarded professionals as doctors or architects. The expectations for teachers' professional performance regarding curriculum delivery is mandatory with the absence of common teaching standards. Finnish teachers design together their own school curricula in respect of the national framework. "Teaching is a team sport, not an individual race." Sahlberg (2015). Teachers in this study were unanimous about their responsibility for delivery of curriculum. It is teachers' right.

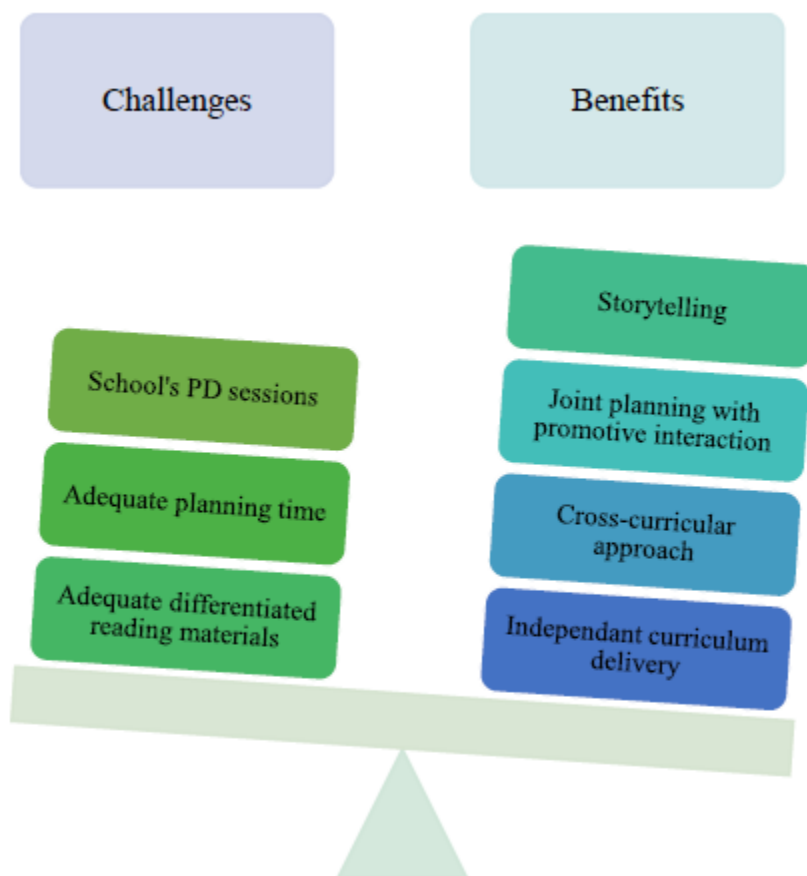
This pilot shows clearly the method of delivering ADSM curriculum with the cross-curricular approach built on stories motivates students enormously. The outcomes of different subjects can be taken out and combined according to different stories to build a holistic picture. The project also responded to the governmental call for motivating the Emirati children to read. By the end of this project students have a good knowledge of these 12 classic stories and their morals, but more importantly, an understanding of how fascinating and fun learning and reading can be! The results in improving the reading skills were promising and on the individual level outstanding.

The aim of this article was also to describe how the PhenoBL approach was conducted and what were the benefits and challenges the teachers faced. One challenging component in a project like this turned out to be adequate joint planning time. It was mutually agreed that the joint planning should be respected on yearly, termly, weekly basis and according to the themes. A furthermore project like this requires a solid planning session at the end of the previous academic year in June-July for everything to be ready for the beginning of the next academic year.

PhenoBL was found a very convenient way of deepening child's learning at home. The connections to the curriculum outcomes can easily be found in every day chores like cooking or baking. Children can be measuring, making mixtures, observing and calculating physical and chemical changes etc. Replicating the PhenoBL methods taught at the school can improve children's critical and analytical thinking and has strong influence on creativity and problem solving skills.

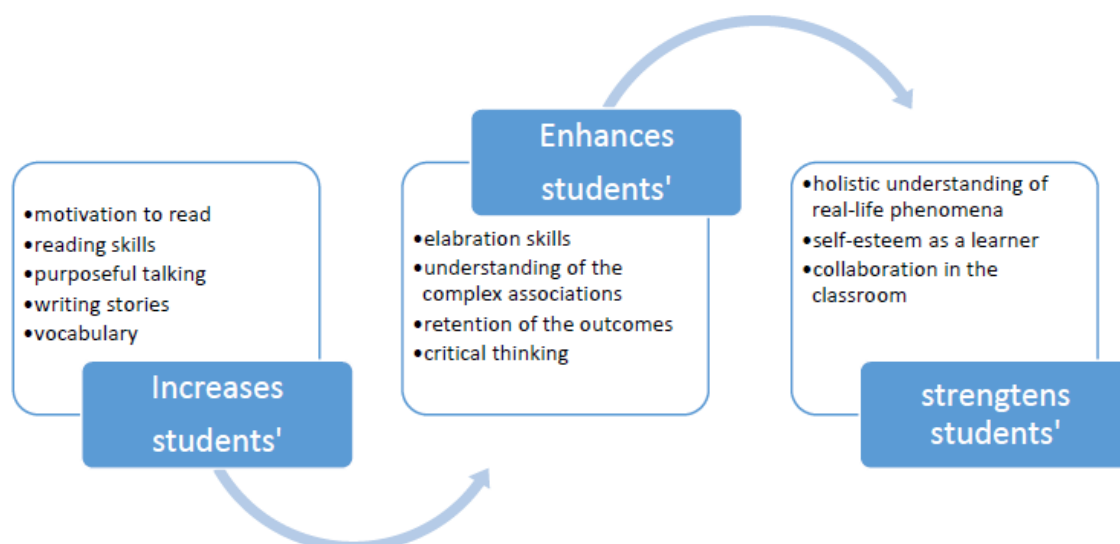
As a limitation, we must recognize that the Running Records Assessment tool has been created for native English speaking children. Therefore, it doesn't clearly appraise the struggling start of the non-native English-speaking children's reading. However, it clearly shows the speed of progress in reading including the motivation to read compared to the previous tests as an evidence of success. The assessment was done in the beginning of the term one, two and three. The results in the end of the school year could have given more perspective. We must also admit that it is impossible to declare that the progress in reading would be mere because of the specific teaching approach.

## Conclusion



**Figure 7. Conclusion of benefits and challenges in implementation PhenoBL approach in ADSM**

To conclude the challenges and benefits of the Storyville project it must be recognized that the benefits and positive effects weigh far more than the challenges (see figure 7). Teachers brought up some concerns of the joint planning time, adequate differentiated reading materials and the request to use school's PD-sessions more beneficially for the project. However, they appraised highly the benefits of the project. Storytelling was found an effective way to teach and the teachers had enjoyed collaborative planning. The cross-curricular approach had strengthened students' understanding of topics and teachers had proudly developed their own way of curriculum delivery that worked successfully with the students. When teachers are excited in curriculum delivery, students get eager to study.



**Figure 8. The benefits for the students of revising ADSM curriculum according to the PhenoBL approach using storytelling as a teaching method**

The major result of this project was the students' high reading and learning motivation and the improved reading skills which encourage teachers to proceed with this line of curriculum delivery also in the future. The benefit of this approach are highlighted in figure 8. Emotions of the stories seem to support students' retention of the stories. (Eck, 2006). Since the learning outcomes were embedded in the lessons along with the stories and revised through different subjects, students remembered and learned to understand the learning outcomes. Enhanced elaboration and thinking skills results in strengthening students' holistic understanding of the phenomena occurring in their own lives.

This project can be replicated in any country and any school. These stories are internationally known. This could also be implemented with stories from a certain country. It could also be applied to other grade levels. It just requires choosing the right kind of stories for each grade level curriculum. ADEC is strongly supporting schools to improve cross-curricular connections in teaching. A project like the Storyville can be seen as a pilot for further development of curriculum delivery in a child-centered way. These active learning methods used with the PhenoBL approach seem to suit well also mixed-gender education. Regardless of the limitation the joy and excitement to build learning on stories in a holistic and a cross-curricular way has been evident and gives teachers a vision to continue with this new path of delivering the curriculum.

## References

- ADEC (2012). *The foundation of the New School Model: Teacher's guidebook*. Retrieved from: <https://www.adec.ac.ae/en/mediacenter/publications/teachers-guide-partA.pdf>
- ADEC (2015). *ADEC Public School Manual*. (2015, March 28.) Retrieved from [HTTPS://portal.adec.ac.ae](https://portal.adec.ac.ae).
- Al Dhaheri, R. (2015). *Teachers' Agency and Identity – ADEC Schools as Professional Learning Communities*. University of Jyväskylä, Faculty of Education
- Al Kilani, B. (2016). *What is Phenomenon-Based Learning?* Retrieved from <http://teachmiddleeastmag.com/phenomenon-based-learning/>
- Branaghan, R. J. (2010). What is so special about stories? The cognitive basis of contextually rich learning. In *Storytelling as an Instructional Method Research Perspectives* Dee H. Andrews, Thomas D. Hull and Karen DeMeester (Eds.). *Sense Publishers*, 11-27.
- Dougherty, K. (2015). Global Trends in Project Based Learning: From the UK, to Finland and Beyond! *Education Insider*. Retrieved from <http://blog.iat.com/2015/06/26/new-global-trends-in-project-based-learning/>
- Eck, Jill E. (2006). *An Analysis of the Effectiveness of Storytelling with Adult Learners in Supervisory Management*. University of



- Wisconsin-Stout. Retrieved from <http://www2.uwstout.edu/content/lib/thesis/2006/2006eckj.pdf>
- Eränpalo, T., Jorgenson, C., Woolsey, L. M. (2016). *The Abu Dhabi school model: Effective delivery of the curriculum*. In International Journal of Humanities and Social Sciences. p-ISSN: 1694-2620 e-ISSN: 1694-2639. Vol. 8 No. 6, (24-35).
- Finland Will Become The First Country In The World To Get Rid Of All School Subjects. (2016, November 16.) Retrieved from <https://brightside.me/wonder-curiosities/finland-will-become-the-first-country-in-the-world-to-get-rid-of-all-school-subjects-259910/>
- Friday, M. J. (2014). Why Storytelling in the Classroom Matters. *Edutopia*. Retrieved from <https://www.edutopia.org/blog/storytelling-in-the-classroom-matters-matthew-friday>
- Green, Melanie, C. (2004). Storytelling in Teaching. *APS Association for Psychological Science*. Retrieved from <http://www.psychologicalscience.org/observer/storytelling-in-teaching#.WYyvIf97IU>
- Johnson, D. W. & Johnson R. T. *An Overview of Cooperative Learning*. (2017, January 28). Retrieved from <http://www.co-operation.org/what-is-cooperative-learning/>
- Learning A-Z. (2017, March 7). Retrieved from <https://www.readinga-z.com/helpful-tools/about-running-records/scoring-a-running-record/>
- Learning at the Primary Pond. (2017, March 7). Retrieved from <http://learningattheprimarypond.com/blog/how-to-analyze-running-records/>
- Raahan, B. D. (2016). Addressing the Disconnect. *The Statesman*.
- Sahlberg, P. & Hasak, J. (2016, May 9). 'Big data' was supposed to fix education. It didn't. It's time for 'small data'. *Washington Post*. Retrieved from [https://www.washingtonpost.com/news/answer-sheet/wp/2016/05/09/big-data-was-supposed-to-fix-education-it-didnt-its-time-for-small-data/?utm\\_term=.435b1fed2b9a](https://www.washingtonpost.com/news/answer-sheet/wp/2016/05/09/big-data-was-supposed-to-fix-education-it-didnt-its-time-for-small-data/?utm_term=.435b1fed2b9a)
- Sahlberg, P. (2015, October 5). Do teachers in Finland have more autonomy? *The Conversation*. <https://theconversation.com/do-teachers-in-finland-have-more-autonomy-48371>
- Sahlberg, P. (2012, September). Quality and Equality Finnish Schools. *School Administrator*. Retrieved from [https://pasisahlberg.com/wp-content/uploads/2013/01/Qualit\\_and\\_Equity\\_SA\\_2012.pdf](https://pasisahlberg.com/wp-content/uploads/2013/01/Qualit_and_Equity_SA_2012.pdf)
- Silander, P. Re-thinking from Finland. *Phenomenal Education*. (2017, January 28) Retrieved from <http://www.phenomenaleducation.info/phenomenon-based-learning.html>
- Spiller, P. (2017, May 29). Could subjects soon be a thing of the past in Finland? *BBC News*. Retrieved from <http://www.bbc.com/news/world-europe-39889523>
- Tough, P. (2016). *Helping Children Succeed*. What Works and Why. New York: Houghton Mifflin Harcourt.
- Uudet opetussuunnitelmat pähkinänkuoressa. (n.d.). Retrieved from [http://www.oph.fi/koulutus\\_ja\\_tutkinnot/perusopetus/opetussuunnitelma\\_ja\\_tuntijako/uudet\\_opetussuunnitelmat\\_pahkinankuoressa](http://www.oph.fi/koulutus_ja_tutkinnot/perusopetus/opetussuunnitelma_ja_tuntijako/uudet_opetussuunnitelmat_pahkinankuoressa)
- Walther-Thomas, C., Bryant, M. & Land, S. (1996). Planning for Effective Co-Teaching. The Key to Successful Inclusion. *Remedial and Special Education*. Vol. 17 No.4, (255-264).
- Zhukov, T. (2015, July 27). Phenomenon-Based Learning: What is PBL? Retrieved from <https://www.noodle.com/articles/phenomenon-based-learning-what-is-pbl>