

A STUDY ON THE EFFECTIVENESS OF STORYTELLING SOFT SKILL FOR TEACHING SCIENCE

Dr. V. Parthiban and Dr. P. Suresh Prabu***

Abstract

Generally, storytelling is thought to be an effective strategy for language or social sciences but not for science. Irrespective of the subjects, effective strategies like storytelling enhance the quality of education. To assess the effectiveness of storytelling for teaching science to standard IX students an experimental study was carried out on 65 students (control group -32 and experimental group -33). They were taught the lesson - Environmental Science prescribed in their Tamilnadu State Board School Text Book. The data was collected before and after the treatment and analysed. The experiment group students' achievement scores in science during post-test and retention test were significantly greater than that of the control group. But the pre-test scores of both the groups did not differ significantly. There was a significant difference in pre-test and post-test of control group, unlike its' post-test and retention test. Instead, there were significant differences in the between a) pre-test and post-test, and b) post-test and retention test of the experimental group. Thus, the experimental study revealed that the storytelling soft skill is highly effective in improving the students' achievement in science. Thus, it should be widely used by teachers of all subjects to enhance the quality of education.

Keywords: *Soft skills, Storytelling, Teaching science, and School students*

Introduction

In order to efficiently manage the interpersonal relationships, every one of us need to equip our skills. These include soft skills like adaptability, communication, time management, listening skill, creativity, ethics, emotional intelligence, empathy, mutual respect, social bond, conflict resolving, attitude, leaderships, public speaking, problem solving, team work (Hampton, 1981; Kechagias, 2011; Loveless, 2021). Altogether, these soft skills could be referred as 'people skills' (Pachauri and Yadav, 2013) and are the characteristics (Heckman & Kautz, 2012) representing an individual's personality. Irrespective of the subjects taught in school, soft skills are essential to enhance the quality of

teaching-learning process and to bridge the gap between teachers and learners. Soft skills also ease the process of attainment of educational objectives by students. Among the various soft skills, communication skills and ethical work behaviour (Mathews & Reddy, 2018) are considered to be essential for a teacher. In specific, effective communication skills could be fully utilised by teachers through strategies like storytelling, discussion, etc.

For the majority, in words of Howard's (2019), the best stories are about things that do not go to plan, where there is an unexpected twist or turn so there is a bit of drama or humour or something surprising, when there is an interesting lesson to be learned. According to Smeda, Dakich and Sharda (2014) storytelling is a natural and powerful method to communicate and share knowledge and experience. Adding, stories are familiar and accessible forms of sharing information (Cubillo and Manzanares, 2017). Usually, children remember the tales with less effort as compared to other means of understanding and exhibit higher retention levels as they directly connect to their emotions. Stories can provide students the necessary contextual knowledge and coherence to understand more complex information. Though storytelling exhibits numerous benefits for a learner, it is thought to be an effective strategy only for language and social sciences but not for science.

Rationale of the Study

Stories are enjoyed by every one of us irrespective of our age. One important aspect for better learning and effective communication is story narration which all students should experience irrespective of the subject taught. The application of storytelling in the classroom is not new (Smeda, Dakich and Sharda, 2014) and by it, students personalise what they learn and construct their own meaning and knowledge (Behmer, 2005). Children have a native affection for stories as they teach them about life, self and others, and also create connect with the world. This is true, as we all have experienced a closer contact with the stories we here and the life we have experienced in one way or the other. Stories gain our focus, capture our interest, and boost our imagination and creativity. But, the two major questions are i) whether the benefits of storytelling are fully given to children during their school education and ii) especially, if storytelling is considered to play a vital role in teaching science for students.

Norris, Guilbert, Smith, Hakimelahi and Philips (2005) proposed that there are two kinds of narratives included in science namely intrinsic (natural phenomena) and extrinsic

(discoveries) and believed the later one to produce positive impact on learning science. However, in both the cases permanency and utility of the concepts learnt is believed to be high. Apart from the intrinsic and extrinsic aspects of storytelling, it is vital to focus on the relation between language and science; and the usage of language in learning science. Sutton (2003) had rightly stated that mutualism between language and Science is irrefutable. During the selection of a Science story, one must bear in mind a number of vital criteria like age appropriateness, apt vocabulary, illustrations and theme or storyline that appeals and engages as listed by Taylor (2010). Thus, if a teacher decides to use storytelling strategy for science class then in addition, must also look into the contextual relation of it.

Also, Homann (2017) stated that it will be easier for students to understand the information, if learning science is enabled by simple stories that can lead to gradual build-up of details. Emphasizing the use of storytelling as a science teaching strategy in Primary Education, Strauss (2006) stated that in addition to the development of linguistic abilities, the other advantages are enhancing communication, cognitive, affective and social skills. With regard to bilingual science classroom, the major reason to implement storytelling as stated by Cubillo and Manzanares, (2017) is that it is a huge part in children's lives since their birth and help students think critically and understand factual contents in a personalized fashion. In connection to this, Homann (2017) recommends that telling stories on how specific scientists struggled in acquiring the knowledge and information, by which we are benefitting presently, will result in positive effects on students' engagement and learning.

However, the success of storytelling completely relies on efficient teachers with high communication skills. Ngang, Hashim and Yunus, (2015) reported that novice teachers were worried about the inadequate soft skills acquired from teachers' training which were not sufficient to support them in their workplace i.e., schools or classroom. To be successful, students need soft skills when they graduate and enter the workforce (Loveless, 2021) and it accounts for 80 % of an individual's efficiency in work (Onabamiro, Onuka and Oyekanmi, 2014). Parthiban.V. and Vakkil.M (2022) reported that street play training programme significantly enhances the communication skills of the prospective teachers, One of the major issues while communicating scientific information to students is that it is often unfamiliar, may cognitively result in conflict with belief systems, as it is often presented with high intrinsic load (Avraamidou & Osborne, 2009; Brownell et al., 2013) Beyond all, storytelling

in science will enables us to reduce the routine use of textbooks and think outside the traditional methods that enables out students keep pace with the present world.

Statement of the Problem

Storytelling has many benefits like bridges the gap between information, allows listeners to effortlessly link and understand scientific ideas along with incorporating it into their existing schemata (Csikar and Stefaniak, 2018). Thus, it makes learner to feel that science is not totally a dry subject instead a far interesting one. According to Hoffmann (2005) Science and stories are not only compatible, they are inseparable. Thus, it shows that there is a huge mistaken assumption that stories are only meant for literature and are not beneficial to learn the logical subject like science. Haji Matamit, Roslan, Shahrill, Said (2020) stated that storytelling is widely applied to increase language ability, but definitely, it expands the knowledge in other subjects like Science. According to Dunne (2006) there are two purposes of storytelling in science namely illustration of the concept and the second on is the kind of narrative used with respect to the breakthrough or points understood. Above all, Schulz (2008) stated that the importance of communication skill does not only contribute to a person's professional career but also contributes to social competence. In spite of holding innumerable benefits the use of stories in science education is very scanty. Also, the literature reviews show that there is a huge lack of studies that focus on the use of storytelling in science education. It is important to device and assess storytelling as an alternative method to teach science to students in order to progress in contextual understanding of the information and to aid in integration of the information. Hence, a study had been intended to carry out to assess the effectiveness of storytelling soft skill for teaching science to standard IX students.

Research Questions

1. Is storytelling soft skill effective in improving the students' achievement in science?
2. Is there any difference in students' achievement in science based on the storytelling and traditional teaching methods?
3. Is there any significant difference in students' achievement in science based on pre-test and post-test?
4. Is there any significant difference in students' achievement in science based on post-test and retention?

Objectives of the Study

1. To measure the impact of storytelling soft skill on the IX standard students' achievement in science in Namakkal District.
2. To compare achievement in science between control and experimental groups' students studying in standard IX.

Variables of the Study

1. Dependent Variable- Standard IX Students' Achievement in Science
2. Independent Variables- Storytelling and Traditional Method

Research Hypotheses

1. There is a significant difference between the control group and experimental group achievement mean scores of students in science during (a) pre-test, (b) post-test, and (c) retention.
2. There is a significant difference in the achievement mean scores in science of control group students between (a) pre-test and post-test, and (b) post-test and retention.
3. There is a significant difference in the achievement mean scores in science of experimental group students between (a) pre-test and post-test, and (b) post-test and retention.

Research Methodology

Research Design: Experimental method was adopted for this study. Pre-test - Post-test control and Experimental group design was used.

Population and Sample: The target population of the study consist of school students studying in Standard IX in Namakkal District. For the feasibility in conduction of the experiment only Standard IX students of two matriculation schools were considered. After getting the formal permission from the school authorities, a pre-test was conducted for all the students studying in Standard IX irrespective of the section they belong to. Based on the pre-test scores, only the low achievers were selected for the further study. Finally, 32 students selected from one school were considered as the control group (taught using traditional method) and 33 students selected from another school were considered as the experimental group (taught using storytelling method).

Tools Used: The stories for the story narration sessions were developed for the environmental science unit prescribed in the Tamilnadu State Board standard IX Science Text Book. The content validity was established by subjecting the story scripts for experts' review.

A self-constructed and standardised achievement test questionnaire for science was used during pre-test, post-test and retention test. For pilot study, the tool comprised of 35 questions framed based on the environmental science unit prescribed in the Tamilnadu State Board standard IX Science Text Book. The content validity was established by subjecting the tool for experts' review. The obtained data were subjected to item analysis (item difficulty and discrimination index). After item analysis, totally 25 items were retained in the achievement test questionnaire for science. Split-half method was used to check the reliability and the obtained co-efficient was 0.77.

Rationale for the selection of environmental science content for the experiment:

After the careful investigation of the contents of XI standard science textbook, investigators decide to narrate stories for the contents namely chemical bonding, universe and environmental science. Based on the opinion of experts in the field of storytelling, the scripts created in environmental science content possess instinctual questions and answers, possibility to interact with listeners and content economy which are essential components for storytelling. So the investigator decided to choose environmental science content for experimentation.

Process of experimentation

Investigator himself as a folk artist possesses enough experience in the storytelling skill, along with this practicing in front of performing art experts provides a wide range of inputs to shape effective storytelling sessions. Investigators plan to utilize eight sessions for the experimentation process; it includes pre- test (1 session), introduction to environmental science (1 session), content delivery through storytelling (4 sessions), post- test (1 session) and retention test (1 session).

Statistics Analysis: The collected data were coded and the t-test was employed.

Major Findings of the Study

H₀-1: There is no significant difference between the control group and experimental group achievement mean scores of students in science during (a) pre-test, (b) post-test, and (c) retention.

Table 1. Achievement of Control and Experimental Groups

H ₀	Test	Group	N	Mean	SD	Df	't' value	P value
1a	Pre-test	Control	32	8.44	1.076	63	1.42	0.16
		Experimental	33	8.06	1.059			
1b	Post-test	Control	32	10.41	1.188	63	14.84*	0.00
		Experimental	33	15.91	1.756			
1c	Retention	Control	32	10.94	1.480	63	16.31*	0.00
		Experimental	33	19.12	2.459			

(*Significant at 0.05 level)

The table 1 shows that the calculated 't' values for post-test (14.84) and retention test (16.31) were greater than the table value (1.99) at 5% significance level. Also, the mean scores during post-test and retention test of experimental group (15.91 and 19.12) are greater than that of control group (10.41 and 10.94). Hence, the formulated null hypotheses H₀-1b and H₀-1c were rejected and H-1b and H-1c were accepted. Thus, there is significant difference between the control group and experimental group achievement mean scores of students in science during (b) post-test and (c) retention.

Further, the table reveals that the calculated 't' value for pre-test (1.42) is lesser than the table value (1.99) at 5% significance level. It is inferred that there is no significant difference in the achievement mean scores in science of students between the control group (8.44) and experimental group (8.06) during pre-test. Hence, the null hypothesis H₀-1a is accepted.

H₀-2: There is no significant difference in the achievement mean scores in science of control group students between (a) pre-test and post-test, and (b) post-test and retention.

Table 2 Comparison of Achievement in Science of the Control Group

H ₀	Test	N	Mean	SD	Df	't' value	P value
2a	Pre-test	32	8.44	1.076	31	8.52	0.00
	Post-test	32	10.41	1.188			
2b	Post-test	32	10.41	1.188	31	1.83	0.07
	Retention	32	10.94	1.480			

(*Significant at 0.05 level)

The above table 2 exhibits that the calculated 't' value for pre-test and post-test achievement in science of the control group (14.84) is greater than the table value (2.039) at 5% significance level. Also, the mean score of the control group during post-test (10.41) is greater than that of pre-test (8.44). Hence, the formulated null hypothesis H₀-2a is rejected and H-2a is accepted. Thus, there is significant difference in the achievement mean scores in science of control group students between (a) pre-test and post-test.

Added, the table reveals that the calculated 't' value for post-test and retention test achievement in science of the control group (1.83) is lesser than the table value (2.039) at 5% significance level. It is inferred that there is no significant difference in the achievement mean scores in science of the control group students between post-test (10.41) and retention test (10.94). Hence, the null hypothesis H₀-2b is accepted.

H₀-3: There is no significant difference in the achievement mean scores in science of experimental group students between (a) pre-test and post-test, and (b) post-test and retention.

Table 3 Comparison of Achievement in Science of the Experimental Group

H ₀	Test	N	Mean	SD	df	't' value	P value
3a	Pre-test	33	8.06	1.059	32	22.52	0.00
	Post-test	33	15.91	1.756			
3b	Post-test	33	15.91	1.756	32	9.03	0.00
	Retention	33	19.12	2.459			

(*Significant at 0.05 level)

With regard to the achievement in science of the experimental group, the above table 3 reveals that the calculated 't' values for pre-test and post-test (22.52) and post-test and retention test (9.03) are greater than the table value (2.037) at 5% significance level. Also, the mean score of the experimental group during post-test (15.91) is greater than that of pre-test (8.06). Likewise, the mean score of the experimental group during retention test (19.12) is greater than that of post-test (15.91).

Hence, the formulated null hypotheses H_{0-3a} and H_{0-3b} are rejected and H_{-3a} and H_{-3b} are accepted. Thus, there is significant difference in the achievement mean scores in science of experimental group students between (a) pre-test and post-test, and (b) post-test and retention.

Discussion Based on Major Findings

Both during post-test and retention test, the achievement mean scores of experimental group students who were taught using storytelling strategy were significantly higher than the control group. This clearly shows that storytelling is a quite effective alternative and will definitely ensure students' achievement in science. However, these groups did not differ significantly during pre-test. The current finding substantiates that of Krupa (2014) that the students' engagement through storytelling in biology classroom is positively correlated with learning. Also, Homann (2017) reported that storytelling improved students' interest in science, enhanced their problem-solving abilities, and assisted them to create positive perceptions about scientists. The importance of this result is evidential by the statement of Susilawati, Aznam, Paidi and Ngadimin (2020) that communication skills are vital for learning science; since communication in science is different from other communications (eg: formulate scientific communication, writing ideas, reporting facts). This is also well associated with the findings of Erlin, Wilujeng, Susilawati, Panjaitan and Haristy (2020) that 78.1% pre-service teachers opted that soft skills are very important for science teacher; and 78.1% of science teachers chose communication skills. Apart from developing language ability, Haji Matamit, Roslan, Shahrill, Said (2020) storytelling expands knowledge in other subject areas such as Science and Fernandes, Jardim and Lopes (2021) found that effective communication, collaborative work, and reflexivity emerged to stand out.

Though the control group showed significant difference between pre-test and post-test, this may be the usual improvement that could be attained by the traditional teaching

method which was inconsistent and did not show substantial retention. Also, the outcome was very low when compared to that of the experimental group. On the other hand, the students who learnt science via storytelling exhibited significant and consistent improvement from pre-test to post-test and also from post-test to retention. The reliable and constant improvement in mean scores substantiates the statement of Druger (2001) that the important teaching goal is not to have students just pass the exams, but to provide experiences that make a long-lasting impact on them. Also, the findings could be correlated with other studies on storytelling by Krupa (2014) for biology classroom, Homann (2017) for telling stories of scientist, and Susilawati, et al. (2020) on communication skills for learning science.

From the results it is proved that the students who were taught using storytelling strategy have greater retention ability than those who were taught using the traditional teaching. The current finding is related to that of Krupa (2014) that the students' engagement through storytelling in biology classroom is positively correlated with learning and information retention. This substantiates the statement of Druger (2001) that the important teaching goal is not to have students just pass the exams, but to provide experiences that make a lasting impact on their lives. Stories or narratives can bring abstract concepts to life by giving them concrete form and such information is easier to retain than a random list of unrelated and isolated facts (Cubillo and Manzanares, 2017).

Implications of the Findings

Scientific development of a nation is the concrete development and for which students who are the future pillars are vital. In turn, students having a conceptual clarity in scientific facts and logics during their early learning stage i.e., at schools is undoubtedly essential. Thus, all possible alternatives like storytelling must be used to equip science teachers and as well as improve students learning. While saying students, it includes every member of the diverse classroom (gifted, normal, slow learners). The findings of the current study reveal that storytelling is effective in increasing the level of achievement in science of low achievers than the traditional method. Also, it is evident that the retention level of these learners is consistent. However, while qualitatively analysing the use of storytelling at elementary science, Haji Matamit, Roslan, Shahrill, Said (2020) identified four challenges from the observations and video recordings namely language aspect, development aspect, external challenges and existing knowledge. Thus, care must be taken to resolve the issues and provide students with ample opportunities to learn through storytelling method. Also,

students must be encouraged to read stories on scientist and scientific inventions as it not only increases their reading and language ability but also will improve their factual knowledge. Teachers must take measure to include storytelling session whenever possible in teaching science. Teachers with good communicative skills can volunteer to implement storytelling sessions for science teaching and to train others.

Conclusion

The present study reveals that storytelling is very effective in improving the achievement in science and progressive growth. This study also stands as an example for the vital role played by storytelling in enriching students' learning, interest, communication, aptitude, creativity, and problem-solving abilities. Apart from being joyful, there are various benefits that students can gain from being introduced to range of stories in science classroom like positive social, emotional, cultural and intellectual development. In Homann's (2017) view, storytelling is possible in science education when the fundamentals are already in place, and they can connect the existing knowledge with the new knowledge. There are certain limitations in implementing storytelling in science class. These could be overcome by including soft skills like communication in teacher education curriculum (Pachauri and Yadav, 2013) and by resolving the issue of inadequate soft skills of novice teachers acquired from teachers' training program (Ngang, et al., 2015) that could enrich the science classroom teaching by stories and discussions.

References

- Avraamidou, L., & Osborne, J. (2009). The role of narrative in communicating science. *International Journal of Science Education*, 31(12), 1683-1707. <https://doi.org/10.1080/09500690802380695>
- Behmer, S. (2005). *Literature Review Digital Storytelling: Examining the process with middle school students* [Doctoral dissertation].
- Brownell, S. E., Price, J. V., & Steinman, L. (2013). Science Communication to the General Public: Why We Need to Teach Undergraduate and Graduate Students this Skill as Part

- of Their Formal Scientific Training. *Journal of Undergraduate Neuroscience Education*, 12(1), E6 E10.
- Csikar, E., & Stefaniak, J. E. (2018). The Utility of Storytelling Strategies in the Biology Classroom. *Contemporary Educational Technology*, 9(1), 42-60. <https://doi.org/10.30935/cedtech/6210>
- Cubillo, S. A., & Manzanares, J. A. (2017). Storytelling as a Tool for Science Teaching in Bilingual Primary Education. *ENSEÑANZA DE LAS CIENCIAS, N.º EXTRAORDINARIO*, 5085-5090. <https://core.ac.uk/download/pdf/147042392.pdf>
- Druger, M. (2001). Creating a motivational learning environment in science. *Journal of College Science Teaching*, 30(4), 222- 224.
- Dunne, I. B. (2006). Bringing the Story Alive. *Primary Science Review*, 22-24. <https://eric.ed.gov/?id=EJ932283>
- Erlini, N., Wilujeng, I., Susilawati, Panjaitan, M. H., & Haristy, D. R. (2021). Profile about initial soft skills understanding of pre-service science teachers'. *Proceedings of the 6th International Seminar on Science Education (ISSE 2020)*. <https://doi.org/10.2991/assehr.k.210326.107>
- Fernandes, P. R., Jardim, J., & Lopes, M. C. (2021). The soft skills of special education teachers: Evidence from the literature. *Education Sciences*, 11(3), 125. <https://doi.org/10.3390/educsci11030125>
- Haji Matamit, H. N., Roslan, R., Shahrill, M., & Said, H. M. (2020). Teaching challenges on the use of storytelling in elementary science lessons. *International Journal of Evaluation and Research in Education (IJERE)*, 9(3), 716-722. <https://doi.org/10.11591/ijere.v9i3.20596>
- Hampton, D. R. (1981). *Contemporary management*. McGraw-Hill, New York.
- Heckman, J., & Kautz, T. (2012). Hard evidence on soft skills. *Labour Economics*, 19(4), 451–464. <https://doi.org/10.3386/w18121>
- Hoffmann, R.(2005). Storied Theory. *American Scientist*, 93, 308-310. http://www.roaldhoffmann.com/sites/all/files/storied_theory.pdf

- Homann, M. (2017, November 27). *How science teachers can use storytelling*. Labster. <https://www.labster.com/how-science-teachers-can-use-storytelling/>
- Howard, L. S. (2019, May 14). *Storytelling is Key Soft Influencing Skill, says UK Consultant, Coach and Storyteller*. Insurance Journal.
- Kechagias K. (Ed.). (2011). *Teaching and Assessing Soft Skills*. 1st Second Chance School of Thessaloniki. http://research.education.nmsu.edu/files/2014/01/396_MASS-wp4-final-report-part-1.pdf
- Krupa, J. J. (2014). Scientific method & evolutionary theory elucidated by the ivory-billed woodpecker story. *The American Biology Teacher*, 76(3), 160-170. <https://doi.org/10.1525/abt.2014.76.3.3>
- Loveless, B. (2021). *Teaching soft skills: The complete guide*. Education Corner© Online Education, Colleges & K12 Education Guide.
- Mathews, S. M., & Reddy, J. K. (2018). Soft skills of secondary level teachers. *International Journal of Research*, 7(10), pp. 374–378.
- Ngang, T. K., Hashim, N. H., & Yunus, H. M. (2015). Novice teacher perceptions of the soft skills needed in today's workplace. *Procedia - Social and Behavioral Sciences*, 177, 284-288. <https://doi.org/10.1016/j.sbspro.2015.02.338>
- Norris, S. P., Guilbert, S. M., Smith, M. L., Hakimelahi, S., & Phillips, L. M. (2005). A Theoretical Framework for Narrative Explanation in Science. *Science Education*, 89(4), 535-563. <https://doi.org/10.1002/sce.20063>
- Onabamiro, A. T., Onuka, A. O. U., & Oyekanmi, S. A. (2014). Teachers' Perception of Teaching and Assessing Soft Skills in Secondary schools. *Education*, 4(5), 109-115. <https://doi.org/10.5923/j.edu.20140405.01>
- Pachauri, D., & Yadav, A. (2014). Importance of Soft Skills in Teacher Education programme. *International Journal of Educational Research and Technology*, 5(1), 22-25.
- Parthiban, V., & Vakkil, M. (2022). Enhancing communication skills of prospective teachers through theru-k-koothu (street play) – an empirical research study. *ShodhKosh: Journal*

of *Visual and Performing Arts*, 3(2), 216–225.
<https://doi.org/10.29121/shodhkosh.v3.i2.2022.165>

Roslan, R. M. (2008). *The use of stories and storytelling in primary science teaching and learning*. Academia.edu – Share research. [https://www.academia.edu/5860697/The use of stories and storytelling in primary science teaching and learning](https://www.academia.edu/5860697/The_use_of_stories_and_storytelling_in_primary_science_teaching_and_learning)

Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge. *NAWA Journal of Language and Communication*, 146–154. <https://www.bcsgea.org.bd/wp-content/uploads/2019/11/The-Importance-of-Soft-Skills-Education-beyond-academic-knowledge.pdf>

Smeda, N., Dakich, E., & Sharda, N. (2014). The Effectiveness of Digital Storytelling in the classrooms: A comprehensive Study. *Smart Learning Environments*, 1(6), 1–21. <https://doi.org/10.1186/s40561-014-0006-3>

Strauss, K. (2006). *Tales with tails: Storytelling the wonders of the natural world*. Libraries Unlimited, Westport, Connecticut.

Susilawati, Aznam, N., Paidi, & Ngadimin. (2020). Teachers' perspectives toward soft skills in science learning. *Journal of Physics: Conference Series*, 1460, 012111. <https://doi.org/10.1088/1742-6596/1460/1/012111>

Sutton, C. (2003). Los profesores de Ciencia como profesores de Lenguaje. *Enseñanza de las Ciencias*.

Taylor, N. (2010). Using Stories to Support Science at KS1. *Science Assessment*.

Teaching Science with Stories. (2017, March 10). University of Texas at Arlington Online. <https://academicpartnerships.uta.edu/articles/education/teaching-science-with-stories.asp>