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You Can Find It in the Text!

Cecilia Rosenbaum, *Jonkoping University*

Sara Karlerus, *Stockholms Internationella Montessoriskola*

Lisa Leander, *Stockholms Internationella Montessoriskola*

A Learning Study on what is necessary for students in 4th and 5th grade to discern in order to develop their abilities of inferential comprehension in works of fiction particularly of characters traits

Inferential comprehension is important because not everything in the text is explicit, which requires students to interact more with the text to gain a deeper understanding of the story and the characters. Therefore, the reader must generate inferences that fill in the gaps, in this case, about the characters. There is a need to study the ability to make inferences in closer detail because it is a complex ability which causes considerable challenges for the students.

The present study is based on the awareness of a common problem for teachers in primary school, namely the challenge of teaching inferential reading in a successful way. Accordingly, there is a need to identify and specify what the pupils need to discern in order to develop their abilities in inferential comprehension so that teachers will gain knowledge about which critical aspects to focus on in order to make the teaching of inferential reading more successful. More, specifically, the research team would like to generate knowledge about what 4th and 5th grade students (10-12 years old) need to discern in works of fiction focusing particularly on character traits and how teaching can make it possible for students to develop this skill.

The theoretical framework used in this research, Variation Theory, states that, to improve students' learning, attention must be paid to the object of learning, which ability that needs to be improved, and which critical aspects that are necessary for the learner to discern (Marton & Runesson, 2015; Marton, 2015; Lo, 2012). A basic assumption in Variation Theory is that people learn by seeing differences, not by seeing sameness (Marton, 2015). The method with which this study is conducted is Learning Study, an interventionist, iterative, classroom-based approach, characterized by the double aim of improving teaching while developing theory. In the research process, the aim is to find out which aspects are critical for the students to discern in order to develop the abilities of inferential reading, and how the critical aspects could be made visible in the teaching.

Two primary school teachers in Swedish (the official language of Sweden and a school subject) and the teacher-researcher collaborated to plan, teach, evaluate, refine, and analyse a series of six lessons in an iterative process with the Variation Theory as the pedagogical principle. Empirical data consists of interviews, pre- and post-lesson assessments, and video recordings of the lessons.

The result of the study contributes to previous research by identifying and specifying what the students need to discern in order to develop their inferential comprehension and how the critical aspects can be taught in a successful way. Primary and secondary teachers may find these results of great interest because they are related and important to their own teaching.

References:

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Learning Study as a Methodology for the Professional Development of Teachers and Its Impact on Students' Learning

See Soo Shin, *Ministry of Education*

Wee Li Hui, *Ministry of Education*

Learning Study is a collaborative and systematic process which aims to address common misconceptions and enhance the way students grasp specific objects of learning. It is anchored by the Variation Theory of learning, which serves as a framework for teachers in terms of pedagogical design, lesson delivery and evaluation.

In this paper, we focus on the collaborative nature of Learning Study to strengthen the professional competency of teachers as they jointly design learning experiences to help students to discern the critical aspects of the subject matter as well as its impact on students' learning.

In our study, the topic on the 'Angle Properties of Circles' were selected and lessons were conducted by two teachers to two classes of Secondary Three (15-year-old) students. Prior to the lesson, a Pre-Test Interview and a carefully crafted Pre-Test were conducted to gather information on students' prior knowledge of the object of learning.

Based on students' responses, we were able to analyse the gap in knowledge and narrow down to two worthwhile objects of learning, namely, 'to recognise an angle at centre is twice the angle at circumference' and 'to recognise the angles in the opposite segments add up to'. Each of these objects of learning was accompanied with the respective critical aspects which we wanted to highlight to our students.

Using these information, we harnessed the potential of Variation Theory into our research lessons. The lessons made use of visual aids to show contrasting examples of angles at the centre, angles at the circumference etc. These contrasting examples helped to address students' difficulties in identifying the angles and at the same time enable them to discern the critical aspects and used them to apply the objects of learning. At the end of the research lessons, we evaluated our students' learning through a post-test and post-lesson discussion.

Modifications were made to the research lessons and a second cycle was conducted on the second class of students. The probing questions used in the lesson were improved on to put more emphasis on the use of various terms used in the topic and the location of various types of angles within a diagram. Medium used for the investigative activity was changed from using a protractor to using an online software to improve on the engagement of the students.

Significant improvement between the pre and post-test for students in both classes showed that the lessons had successfully addressed the students' misconceptions in this topic.

Through this Learning Study, it can be concluded the purposeful platforms for interactions with the students have allowed the teachers to gain more insights to how the students think. As a result, the teachers experienced variation in their understanding of the topic and hence modified the way of dealing with the object of learning. The awareness of any popular misconceptions about the topic have also help the teachers to craft better probing questions for the lesson.

There was a clearer focus on the critical aspects and teachers were able to deliberately organise examples in particular patterns of variance or invariance. This has given rise to the creation of learning experiences which better suit the students and helped them to develop a deeper understanding in the topic. In the process of doing so, the professional competence of the teachers was promoted.

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A Learning Study in Two Upper Secondary Schools: Preventive Injury Exercise for Everyday Movement (Topics 5/ Topics 12)

Karin M Malmquist, *Birgittaskolans gymnasium Klostergatan 49 Linköping kommun*

Anne E Bossfall, *Birgittaskolans gymnasium Klostergatan 49 Linköping kommun*

Nina E Svenman, *Katedralskolans gymnasium Platensgatan 20 Linköping kommun*

John E Erlandsson, *Katedralskolans gymnasium Platensgatan 20 Linköping kommun*

Problem: The National Agency for Education calls for more collegiate learning at schools to rise the possibility of more student reflection and analysis and also to strengthen the quality of education (which does not always follow the steering documents). There are few learning studies in sport and health. KLIH education program (the sport and health subject teaching lift) recommend collegiate Learning Study.

Solution: Linköping municipality has thereby given a group of sports- and health teachers the opportunity to carry out a learning study for two years, in two upper secondary schools. The study investigates the students learning about preventive injury exercise and secure training (as a requested subject within health), for everyday physical movements. One of the critical aspects is how to perform preventive injury training methods and secure training as a source of lifelong well-being, based on personal risk assessment in accordance to technique recommendations. At the lesson the students perform prevention injury- and secure training physically and reflect what it is, is not and where the limits are. They learn how to move for long term health.

In order to follow the governing documents, the students film their physical movements and work in pairs to analyze, evaluate and determine possible developments in their physical movements, anchoring to the training methods theory. One method is running technique, within the motion capture theory, by Stockholm University among others.

Inspired by Hatties visual learning, Notthinghams the interesting way and McKinley's the most affective path of teaching, we allow students to talk more and be challenged at their own level. We aim to teach and clarify subjects that are needed, according to the students pre- and posttest results. We also analyze the film of the education in the light of the posttest, in accordance to variance analysis.

Learning Study purpose: Maximize the students learning and strengthen education quality in the subject sport and exercise. Present our Learning Study and its results. Cultural exchange, exchange of experience and knowledge abroad and creation of possible international contact networks. Spreading and in-depth the knowledge of Learning Studies among ourselves and colleagues in Linköping Municipality. Contemporary lifelong learning among colleagues through continuous collegial learning, in accordance with the Swedish Agency for Education's recommendations.