Teaching of Social Science

A Situated Cognition Perspective

SANDEEP KUMAR*

Abstract

This paper aimed to provide an understanding about the teaching of social studies with reference of situated cognition. It starts with the understanding of meaning, nature and scope of social studies. Paper also talks about the basic objectives of teaching of social studies. It also include the understanding of situated cognition, its nature, scope and pedagogical implications. Following these there is an attempt to present the relationship between situated cognition and teaching of social studies or why we need situated cognition to teach social studies. The presenter of this paper has presented some educational implications with the examples from different classes.

Introduction

Long after history, geography, civics, economics and sociology were introduced as independent subjects, social studies was offered as a study including essential elements of all these social sciences. The social studies are understood to be those whose subject matter relates directly to the organisation and development of human society and to man as a member of social groups. (Commission of reorganisation of secondary education of associations, United State of America). What we study in social studies is the life of man in some particular place at some particular time. Therefore, we use every possible 'subject' to help us understand his problems and how he dealt or deals with them.....Man's struggle with environment yesterday and today, man's use or misuse of his powers and resources, his development, the essential unity of civilisation these are the main themes of social studies. (Social studies committee of schools board, Victoria).

Social studies is a field of study which deals with man, his relations with other men and his environment. Its content is drawn from several social sciences but is not determined by the discipline of any one of these. Rather the content and organisation of social studies derive

*Lecturer, Department of Education, CIE, University of Delhi.

directly from the purposes for which it is taught. Those purposes include an understanding of human relationships, knowledge of the environment, dedication to the basic principles and values of the society in which it is taught, and a commitment to participate in the processes through which that society is maintained and improved. These are the most important characteristics of the social studies point of view.

As an inter-disciplinary course it draws its contents selectively from several other branches of knowledge and human experience. The scope of the social studies is continuously growing, as the social process and problems are changing from time to time. Its content must be revised periodically. The field of social studies covers the study of communities at all level — local, regional, national and international, focusing on man and his social environment.

Social studies provides situation in which school children may use related learning in a functional and natural setting for the application and use of knowledge and basic skill in solving human problem. Thus, it may be used as means of integrating various school activities and experiences.

The breadth, comprehensiveness, variety and extension of learning experiences, provided through the teaching of social studies, make its scope as wide as the world and as long as the history of man on this earth.

Social studies include the study of those social sciences and humanities, which can be applied for a practical understanding of human relationships. These are history, geography, economics, civics, sociology, literature, religion and psychology, social studies view these social sciences as a compact whole in the process of synthesising these subjects into a new field, blending them together, making it a compact and coordinated whole. Social studies make a man human. It describes the entire range of human history from the earliest time down to the latest moment and the widest reaches of contemporary society.

Social sciences and natural sciences are inter-related. Recent advances in the fields of physical sciences, industry and technology have revolutionised social life in all parts of the world. These have extended man's vision from family to neighbourhood, from neighbourhood to town, from town to region, from region to nation and even beyond expanding the area of human relationship from local, regional and national level to international level. Therefore the functional study of natural and physical sciences like physics, chemistry, botany, zoology and physiology etc., is an important part of social studies programmed. For example, while chemistry helps to eradicate various diseases, history helps chemistry in providing past human experiences dealing with those diseases.

Thus, social studies provide a wide range of materials. In the words of Ohicholson and Wright, "its scope is really very wide and its theme is the present social life of man, the world over." But social studies is not a limitless and fathomless ocean. It provides only an overall integrated outline of essential common knowledge so as to draw only the functional knowledge from various subjects avoiding the material which has no bearing on social context. Its subject

matter consists only of very simple and reorganised items of information and experience from various fields having a practical value in the daily lives of children.

On the basis of the above understanding we can draw several objectives of teaching of social studies—

- Enabling children to understand the society in which they live.
- Introducing children to the values enshrined in the Constitution of India such as justice, liberty, equality and fraternity and the unity and integrity of the nation, and the building of a socialist, secular, and democratic society.
- Enabling children to grow up as active, responsible, and reflective members of society.
- Enabling children to learn how society is structured, managed, and governed and also about the forces seeking to transform and redirect society in various ways.
- Enabling children to learn to respect differences of opinion, lifestyle and cultural practices.
- Engaging children to undertake activities that will help them develop social and life skills and make them understand that these skills are important for social interaction.
- Encouraging children to question and examine received ideas, institution, and practices.
- Encouraging the reading habit by providing children with enjoyable and interesting reading material.

School is an important part of the process of socialising the child. At all stages of school education, the content, language, and images should be comprehensible, gender sensitive and critical of social hierarchies and inequalities of all kinds.

Something about situated cognition

Before we start to discuss about situated cognition we must think that we can take learning as a dimension of teaching. To understand the various concepts we must have a look on different schools of thought about what they think about learning —

Behaviourism	"Learning is change in behaviour due to experiences."
Cognitivism	"Learning is acquisition of knowledge, comprehension, skill, etc……."
Constructivism	"Learning is a process of knowledge construction (Piaget)"
Social Constructivism	"Learning is a social process of knowledge construction (Vygotsky)"

Situated cognition is a new movement in cognitive psychology which derives from pragmatism, Gibson ecological psychology, ethno methodology, theories of Vygotsky (activity theory) and the writings of Heidegger. However, the key impetus of its development was work done in the last 1980s in educational psychology empirical work on how children and young people learned showed that traditional cognitive 'rule bound' approaches were inadequate to describe how learning actually take place in the real world. Instead, it was suggested that learning was 'situated', that is, it always took place in a specific

context. This is similar to the view of 'situated activity' proposed by Lucy Suchman social context proposed by Giuseppe Mantovani and 'situated learning' proposed by Jean Lave and Etienne Wenger.

Situated cognition emphasises studies of human behaviour that have 'ecological validity' that is which take place in real situation. In more traditional laboratory studies of how people behave in the work place, real world complication such as personal interruptions, office politics, scheduling constraints, private agendas and so forth are generally ignored, even though they necessarily change the nature of the activity. Situated cognition attempts to integrate these complexities into its analytic framework. "The theory of situated cognition.....claims that very human thought is adapted to the environment, that is situated, because what people perceive , how they conceive of their activity, and what they physically do develop together"(Clancey, 1997, pp. 1-2). Furthermore, that people perceive, think and do develop in the fundamentally social contexts; the unit of analysis in situated cognition is socio-cultural setting and the activities of the people within it rather than individual mental functioning. Knowledge as lived practices must be understood in its relation to the social aspect as well as the individual aspect.

Situated cognition approach comes from studies in informal situation rather than formal situation. By studying cognition in real life it tries to come up with a theory for education where children acquire various skills naturally as a child grows in a community tacitly acquiring the norms, beliefs and skills of the community. Situated cognition starts from everyday practices to come up with the theory. Thus situated cognition view is often defined as 'enculturation' or adoption of the norms, behaviour, skill, beliefs, language, and attitudes of a particular community. The community might be mathematicians or gang members or readers or teachers or students any group that has a particular ways of thinking and doing.

Situated cognition is placed under 'social constructivism', which assumes 'knowledge' to be social construction as opposed to 'knowledge' being seen as personal construction. The terms 'situated cognition', 'situated learning', 'situated action', or 'situativity" denote an array of related perspectives, falling under the broad umbrella of 'socio-cultural constructivism'.

Situated cognition approaches are essentially based on the assumption that knowledge is inherently bound to the context i.e., knowledge is situated. Knowledge cannot be separated from the context; in fact it is embedded in the context. By assuming 'knowledge' as situated and context bound, 'learning' according to this approach is also seen as inseparably situated and context bound as exemplified in the mentioned scenarios.

The cultural context, the co-constitutive nature of individual — action-environment and multiple knowledge communities have all become elements of situated cognition theory. Wenger (1998) succinctly summarised the basic premises of situated cognition theory as follow —

1) We are social beings. Far from being trivially true, this fact is a central aspect of learning.
2) Knowledge is a matter of competence with respect to valued enterprises, such as singing in tune, discovering scientific facts, fixing machines, writing poetry, being convivial, growing up as a boy or a girl and so forth.
3) Knowledge is a matter of participating in the pursuit of such enterprises, that is, of active engagement in the world.
4) Meaning—our ability to experience the world and our engagement with it as meaningful—is ultimately what learning is to produce.

With respect to a specific knowledge community, or community of practice, Wenger defined three interacting dimensions — mutual engagement, a joint enterprise, and a shared repertoire. That is "people are engaged in actions whose meaning they negotiate with one another." The actions are in service of a mutually negotiated goal which defines the enterprise in which they are engaged and which "creates among participants' relations of mutual accountability". Finally over time, the activity of the individuals engaged in the enterprise gives rise to specific practices, symbols, and artifacts that are shared by all members of the community.

To understand the situated cognition in better way, we can have a look on this table—

Framework	Principles
The role of context	Everyday cognition — people reason in actively based upon experience within specific contexts; use a variety of methods to solve problem Authenticity — coherent, meaningful and purposeful activity that represent the ordinary practices. Transfer — situated learning environment are more likely to transfer to real life problem solving.
The role of content	Knowledge as tool — students acquire knowledge as well as a sense of when and how to use it. Content diversity and transfer— concepts need to be represented via various content; necessity to apply knowledge in various setting discriminate similarities and differences among setting. Cognitive apprenticeship to provide the opportunities for the learners to internalise learning and develop self monitoring and self correcting skill
The role of facilitation	Facilitation methods — situated learning environments attempts to help students to improve their cognitive abilities, Self monitoring and self correcting skill, encourage active learning and provide opportunities to internalise information facilitation is less directive, more continuous and highly interactive— Modeling Scaffolding (coaching, guiding etc.) Collaborating Fading Using cognitive tools and resources

The role of assessment	Problems and issues— in order to be useful in prompting higher thinking skills testing needs to shift from domain referenced evaluation to assessment; Emphasis need to be on the abilities to diagnose cognitive growth rather than achievement.

Many concepts have emerged in situation cognition research, which helps, in understanding knowledge, cognition and learning in natural settings. **Communities of practice, legitimate peripheral participation, authentic activities, and cognitive apprenticeship** are few of them. These are also some of the concepts representative of situated cognition approach.

Communities of practice is a unifying concept emerging from situated learning research—the idea that learning is constituted through the sharing of purposeful, patterned activity (Lave and Wenger, 1989). **In essence, communities of practice are groups of people who share similar goals and interests.** For example communities of scientists, community of workers, community of farmers, community of teachers, etc. In pursuit of their goals and interests, they employ common practices, work with the same tools and express themselves in a common language. When one starts participating in the activity of the community he/she starts learning about the cognitive apprenticeship methods try to acculturate students into authentic practices through activity and social interaction. Cognitive apprenticeship attempts to promote learning within the nexus of activity, tool and culture. Learning both outside and inside school, advances through collaborative social interaction and the social construction of knowledge. Rsnick has pointed out that throughout most of their lives people learn and work collaboratively, not individually, as they are asked to do in many schools. Lampets's and Schoenfeld's work, Scardamalia. Bereiter, and Steinbach's teaching of writing, and Palincsar and Brown's work with reciprocal teaching of reading all employ some form of social interaction, social construction of knowledge, and collaboration. The notion of cognitive apprenticeship is elated to situated cognition theory and simulates or capitalises on real world activities (Berryman and Bailey, 1992; Brown, 1989). Practices of the community and following their norms, values and beliefs, we become member of that particular community. Legitimate peripheral participation is also related to the communities of practices. Legitimate **peripheral participation** should be understood as defining ways of belonging to a community of practice and someone who is not a legitimate participant would not be allowed access to the resources of the practice.

Authentic work practices or **authentic activities** are based on daily life practices or activities in which learners engage. Such activities have a greater resemblance to activities in which core members of a community

actually engage. For example, authentic social science teaching learning environments would allow students to practice social science as scientists work on research projects in real life. Working on projects with genuine purpose or cause will constitute social science learning according to situated cognition.

Now we are in a position to identify the principles of situated cognition. Principles of situated cognition are—

- Knowledge needs to presented and learned in an authentic context, i.e., settings and applications that would normally involve that knowledge
- Learning requires social interaction and collaboration
- Knowledge is socially embedded.

The principles of situated learning can be applied to designing effective learning environments. The most appropriate instructional method will be one that incorporates both—

(a) Realistic presentation of the knowledge, procedures and skills and
(b) Opportunities for students to apply the knowledge and practice the procedures and skills in a realistic context.

Why situated cognition to teach social studies

Social studies need to be revitalised in order to help the learner acquire knowledge and skill in interactive environment. It has often been noticed that there is an increasing gap between the promises made in the curriculum and what is happening at the level of the child's perception. It is important that the process of learning should promote the spirit of inquiry and creativity among children and teachers.

NCF-2005 says the teacher is an important medium of transacting the curriculum and simplifying as an opportunity for teachers and students to learn together, thus developing a democratic culture within institutions. In order to make the process of learning participatory, there is a need to shift from the mere imparting of information to involvement in debate and discussion. This approach to learning will keep both learners and teachers alive to social realities.

Concept should be clarified to the students through the lived experiences of individuals and communities. For example, the concept of social equality can be understood better through citing the lived experiences of communities that make up the social and cultural milieu of the child. It has also often been observed that cultural, social, and class differences generate their own biases, prejudices, and attitudes in classroom contexts. The approach to teaching, therefore need to be open-ended. Teachers should discuss different dimensions of social reality in the class, and work towards creating increasing self-awareness both amongst themselves as well as among the learners.

The focus group also discussed the adverse effects that the minimal provision of infrastructure and poorly qualified para teachers have on the learning on the discipline. The linkages between adequate infrastructure and the teaching of social studies is not often commented upon because instruction in

the subject requires no obvious space like the way in which a laboratory is required for the teaching of science. However, the effective teaching of social studies is crucially linked to the efficient functioning of the school library and of teachers who are trained to use the resources that the library provides towards the creation of challenging projects and activities. This shift away from rote learning to comprehension through the implementation of projects can only take place if the teacher is able to assess the child's understanding through other means rather than just the completion of the project. A more nuanced assessment of whether the child is learning through project work might help mitigate the present manufacturing of these projects in the market as ready-made objects that parents can buy. It will also help to modify the prevailing belief that increased marks on project work translates into 'easy marks' to be gained with the least effort.

So we have many reasons in support of situated cognition, which are given below—

- Because it starts with cognition in daily life of a layperson in natural settings and produce a theory of 'every day learning'. On the other hand many other theories starts with some preconceived assumption. For example Information processing theory that starts with this assumption – how experts solve the problems and how they study cognition in contrived situation.
- Situated cognition comes from informal situation rather than formal situation.
- It starts with everyday practices, which is called enculturation.
- Situated cognition not promotes the students to conceive only.
- According to situated cognition what we learn in a community that occurs in specific context and culture. This notion of situated cognition is against the traditional classroom learning activity that believes that nature of knowledge is abstract and it can be presented in de-contextualised form.
- In general school practices we see that they belief, that we can teach the subjects according to the textbooks. The basic assumption behind it is, knowledge is abstract and de-contextualised and knowledge can be transferred from teacher to students by textbooks and because of this assumption they use more abstract methodology to teach e.g. reading from textbook and lecture method. This approach is completely against the situated cognition.
- There is another notion that says social studies is not a useful subject. But according to situated cognition social studies develops the cultural and analytical ability.

Situated cognition and NCERT social science textbooks

NCERT new textbooks are based on NCF-2005. National Curriculum Framework emphasising learning in

authentic situations and have strong believe that learning can take place in context. We can easily find lots of examples from these textbooks those provide opportunities to students to learn and understand the concepts in authentic situation or in context. Chapter 'on equality' of class seventh provides opportunities to students to develop critical thinking and understanding by coating real life incidents and raising thought-provoking question about the equality and rationality of equality in existing society such as Omprakash situation in Joothan. These kinds of scenario help students to be more sensitive about certain sensitive issues such as caste, class, gender etc.

Same book in different lesson called 'growing up as boys and girls' talks about different activities which makes students aware and sensitive about current issues like gender inequality. Such as — make a drawing of street or a park in your neighbourhood show the different kind of activities young boys and girls may be engaged in. You could do this work individually or in groups. Working in groups is also being emphasised by these new textbooks and that is appreciable.

The chapter "Democracy in Contemporary World" consists very good learning activities based on situated cognition perspective. Such formation of different groups in the class to collect different type of information (news, clippings, articles, photographs etc.) about struggle for democracy in any country those currently are not democratic. Focusing of the following question — what makes the government non-democratic. Another chapter "What is democracy? Why is democracy?" in same book has some more situated cognition-based activities. One of them is – follow editorial page of any newspaper for one month and collect editorial articles and letters on the page that have anything to do with democracy. These kinds of activities are based on application rather than retention and teachers role become as a guide, monitor or facilitator.

Some activities are purely based on students daily life such as – talk to some elderly person in your family or neighbourhood and collect information about — the trees in his/her neighbourhood when she/he was your age, how did they make their selves comfortable during hot summers and cold winters (Chapter — Our Environment, Class Seventh). How your neighbourhood land is being used. Collect information and discuss how your community being effected by it (Chapter — Natural Resources, Class VIII).

So, NCERT new textbooks primary goal is to develop the students' cognition and cultivate awareness. These books also focus to develop skills and abilities to promote problem-solving, higher order thinking skills and deep understanding of the concepts. Activities available in these books provide opportunities for apprenticeship, guided participation learning with increasing complexity of task, skills and knowledge construction. For deeper and better understanding of situated cognition in teaching of social science, in next segment of the paper we will try to understand implications of situated cognition in social science teaching.

Situated Cognition and teaching of social science — Implications

Situated learning environment attempts to help students to improve their cognitive abilities, encourages learning through active participation, facilitation is less directive, more continuous and highly interactive. Communities of practices, apprenticeship, authentic activities, real world environment etc., are some of them that are incorporated into situated cognition approach. The important aspects of situated cognition approach are presented below. This point will be helpful in designing a situated classroom.

- Application rather than retention becomes the mark of a successful instructional encounter in the situated cognition framework.

Example — Traffic light — If we want to make students capable to understand the traffic rules, we can held a visit to the traffic signal park, where they can understand the concept of traffic light by active participation.

Passing the bill in Assembly — if we want to aware the student to understand the procedure of passing the bill in assembly, we can create the same environment in classroom as we see in assembly or we can held a visit to assembly session

- The goal and objectives of the activity are resultant of the student and teacher negotiation.

Example — if we want to provide opportunities to the students of fifth class about the lesson "find the place on earth", we can provide a globe to the students to read. Interestingly they will ask about the various shapes (states) those are available on the globe and then teacher can help them to understand this concept.

- The teacher functions as guides, monitors, coaches, tutors and facilitators.

Example — teacher can organise a debate on some topic such as "why democracy, Indian Constitution" etc.

- Activities, opportunities, tools and environment are afforded to promote meta-cognition, self-analysis, reflection and awareness.

Example— if we want to teach about the rules, how to walk on the road, we can take them to the road, where they find everyone is walking on his/her left side of the road, they will do self analysis and understand that to avoid the accident we should walk on the left side of the road.

- The learning situation, environment, skills, tasks and content are lifelike, relevant realistic, authentic and correspond to the natural complexities of the real world.

Example — if we want to teach the social customs we can assign them to participate in the common customs of various communities living in their locality.

- Primary sources of information are used in order to ensure authenticity and real world complexity.

Example — we can make capable students to understand the working of the many social institutionns such as Bank, Hospitals etc. by visiting them.

- The knowledge is constructed through social negotiation, collaboration and experience.

Example — we can have discussion on any topic or we can take them to villages to show how *Gram Panchayat* works?

- The learner's previous knowledge construction, beliefs and attitudes are considered in the knowledge construction process.

Example — we can make student capable to understand the importance of the celebration of the various festivals or how money bill pass (but before this students must know how to pass the ordinary bill)

- Problem solving higher order thinking skills and deep understanding are emphasised.

Example — we can assign the work to prepare the scrap book on any topic such as pollution, unemployment etc.

- Learners are provided with the opportunity for apprenticeship, guided participation learning in which there is an increasing complexity of tasks, skills and knowledge acquisition.

Example — if we want to teach the process of election, we can create realistic environment in the classroom itself, so that student can learn how election take place and what is the procedure of election?

Other implications of situated cognition

There are many implications of situated cognition for teaching. These can make teaching more and more effective, realistic and enhanced. These are given below—

- It supports learning from the demand side rather than the supply side.
- The designer moves from the organisation of content and sequences of the creation of environment to induce, and then facilitate understanding.
- Require different roles for teacher: from a knowledge transmitter to a coach or facilitator of student understanding.
- Requires a fundamental change in test traditions, focus on the individual's cognitive progress and transfer of knowledge (testing the cognitive progress)
- Emphasis high order thinking skill.
- Provides complex ill-defined and authentic tasks
- Attempts to cultivate awareness (needed skill in the meta-cognitive monitory of process toward a solution and the reasoning experts experience in real world problem solving)
- Induces inferential reasoning, monitoring and regulation of problem solving and utilization of meta-cognition skills.
- Focus on growth primarily in student cognition.
- Has a primary goal to allow students and teachers to experience the effects of view knowledge on their perception and understanding and understanding of the environment.

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