
UNIT 29 THE PROJECT APPROACH

Structure

- 29.1 Introduction
- 29.2 What is the Project Approach?
 - 29.2.1 Duration of Projects
 - 29.2.2 Relationship between Projects and Other Aspects of the Curriculum
 - 29.2.3 Comparing Theme-based Approach and Project Approach
- 29.3 Using the Project Approach with the Pre-primary Learning
 - 29.3.1 Phase 1: Initiating the Project
 - 29.3.2 Phase 2: Collecting the Information
 - 29.3.3 Phase 3: Concluding the Project
- 29.4 Project Example 'A'
- 29.5 Project Example 'B' (Project Approach in the Indian Context)
- 29.6 Advantages of the Project Approach
- 29.7 Challenges of the Project Approach
- 29.8 Using the Project Approach to Meet Curricular Goals
- 29.9 Summing Up
- 29.10 References and Further Readings
- 29.11 Answers to Check Your Progress Exercises

29.1 INTRODUCTION

In the previous Unit, you have read that one of the ways of implementing the emergent curriculum is to engage children in carrying out a Project. In this Unit, you will study in detail how to plan and implement a Project with young children. Many of the features of the emergent curriculum approach that you have read about in the previous Unit will become even clearer to you as you read the various steps in conceptualizing and carrying out a project with children.

Objectives

After studying this Unit, you will be able to:

- describe the unique features of the Project approach;
- state the different phases of the Project approach — from planning to its completion - and explain the role of the teacher in each of the phases;
- explain how the Project approach is different from the theme-based approach to curriculum planning;
- provide evidence of how the Project approach enables the teacher to meet the curricular goals;
- implement the Project approach with children; and
- state the strengths and challenges of using the Project approach.

29.2 WHAT IS THE PROJECT APPROACH?

The roots of the Project Approach are in the educational philosophies of John Dewey, Piaget and Montessori. Through projects, children investigate a topic of their interest to increase their understanding of the topic. We can say that they construct knowledge as they conduct an inquiry on the topic. The most well-known interpretations of project work in ECCE in the contemporary context are the following:

- a) ‘The Project Approach’ as described by renowned educationists Sylvia Chard and Lilian Katz, and later by Judy Helm as well. This Unit is informed by their work.
- b) The *progettazione* (Projects) carried out in the Reggio Emilia Curricular model. You would remember reading in Unit 28 that Projects are a major element of this model.

According to Katz (1994);

“A Project is an in-depth investigation of a topic worth learning more about. The investigation is usually undertaken by a small group of children within a class, sometimes by a whole class, and occasionally by an individual child. The key feature of a Project is that it is a research effort deliberately focused on finding answers to questions about a topic posed either by the children, the teacher, or the teacher working with the children.”

Helm and Katz (2010) believe that the Project approach as described by them (and the one which is discussed in this Unit) is most suitable for children aged 3 and above. The Project approach with toddlers does not follow the same framework as given in this Unit (but shares some similar features) as children younger than three years find it difficult to create the research questions which guide the Project. This does not mean that toddlers do not take part in investigations. Project investigations undertaken by toddlers are mostly done as an individual activity or an activity done by a small group of children. While the three-year-old may also contribute to a Project, the teacher has to be very sensitive and attuned to them. Most commonly, the Project is undertaken by the whole class in which sub-groups in the class focus on sub-topics related to the main topic.

29.2.1 Duration of Projects

The duration of the Project is flexible, depending on the age and interest of the children as well as on the nature of the topic being investigated. Projects can be carried out over days or weeks or even a couple of months. Generally, Projects end when the children do not have any more questions about the topic and are satisfied with what they have found out. Their attention is naturally turned to another topic.

29.2.2 Relationship between Projects and Other Aspects of the Curriculum

Being involved in a Project does not mean that the children are doing only the activities related to the Project during their entire day at the early childhood centre. Children are also involved in other activities. Projects are not the entire curriculum, but just a part of it. They are compatible with different curriculum approaches, models and classroom environments including theme-based and emergent curricular approaches. For example, during the month-long theme of *'Things we Eat'* in a theme-based curriculum, a group of children carried out a Project on *'grocery shops'*. So, Projects are not meant to replace all other activities in the curriculum. In fact, Projects complement other aspects of the curriculum. Projects give the children an opportunity to apply the skills they may have learnt during other activities and learning experiences. Conversely, the skills learnt during the Project can be applied in other activities. Also, sometimes children may need to develop a skill before they can start on their Project. The children can be helped to learn these skills in other parts of the curriculum. For example, if the teacher knows that for a Project the children will need the skill of measuring, she will carry out some activities with the children on the topic of measurement before the Project begins.

29.2.3 Comparing Theme-based Approach and Project Approach

You may be thinking that the Theme-based approach (about which you read in Unit 27) is quite similar to the Project approach since in both the focus is on a single topic of study. This is true! But they also have certain differences, as described further:

- a) In the theme-based approach, the selection of the theme, the aspects/content to be covered within it and the activities children will be engaged in are typically planned completely by the teacher beforehand. There is minimal or no input from the children. However, in a Project-based approach, the children are central to the entire process. The Project directly involves the children in all its phases — during the planning phase, the implementation phase, and the concluding phase when findings are documented and reported and the Project is reviewed. The element of pre-planning by the teacher is much reduced in the Project approach. The elements of child initiation (what topic to select for study), child decision-making (what to study about the topic and how) and child engagement (continuous exploration and inquiry) are key aspects of the Project process. So the sequence of activities is not fixed, as happens in the thematic approach. And the teacher, instead of knowing beforehand what she will transact, is a co-creator in the Project activities with the children.
- b) Because of the centrality of the children in the entire process, the Project is directly related to children's interests. In the theme-based approach, the teacher has no way of knowing whether the children will find the topics she has selected interesting.

Check Your Progress Exercise 1

1) From the given list of statements, find out which statements are true or false regarding the Project Approach.

Statements	True/False
a) The investigation should be undertaken only in small groups.
b) The duration of a project is usually not fixed.
c) While doing a project, children do not do other activities.
d) All the aspects of the project are decided by the teacher in advance before the project begins.
e) It is an in-depth investigation of a topic over some time.
f) This approach is not suitable for children of higher grades.

29.3 USING THE PROJECT APPROACH WITH PRE-PRIMARY LEARNERS

As mentioned earlier, in this Unit, we are describing the Project approach as developed by Lilian Katz and Sylvia. The Project Approach can be used with any age group of children. In this Unit, we are describing the Project approach to be implemented with pre-schoolers and children in early primary grades (classes 1 and 2). According to them, a Project is planned, developed, and carried out in three phases. These phases are represented in Figure 1.

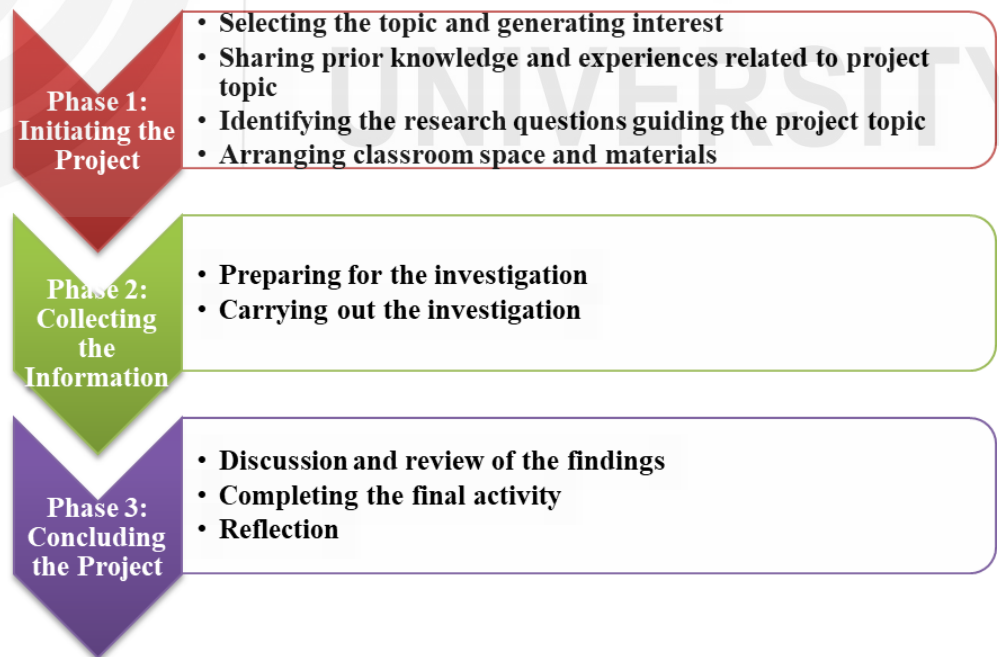


Fig. 1: Phases of the Project Approach

Let us understand these phases in detail.

29.3.1 Phase 1: Initiating the Project

During this phase, the teacher and the children identify a topic that interests them enough to pursue it in a sustained way. By the end of this phase, the research questions for investigation are formulated. This phase may be spread over a few weeks. Let us read in detail about the activities to be done in Phase 1.

- a) **Selecting the Topic:** As you have understood, Phase 1 starts with the selection of the Project topic. The idea for a Project may come from any experience or situation. A good Project topic is one that already interests the children or something that has the potential to engage their interest readily.

The idea for the Project can come through the teacher's observation of children and listening to their conversations and experiences to know what is occupying their minds presently. As she observes them during outdoor and indoor free play, she could come to know about their current interests. She could then ask questions to the whole class about whether they would like to find out more about a topic of interest to them. Sometimes, a teacher may have to introduce 3-4 topics sequentially, before the children slowly develop an interest in one of the topics, start asking questions about it and determine if children are involved enough to carry it further as a Project. Sometimes, the topic for a Project could directly come from the children in the form of a question. For instance, look at the given example.

Salma heard a group of pre-primary learners talking about pizzas. One child was telling the others that his mother had prepared a pizza for him at home which had chicken topping. Another child challenged and said, "No, a pizza has tomato and cheese toppings" (because that is what he always ate since he belonged to a vegetarian family, as the teacher later found out). On hearing the discussion, the teacher asked the group, "Would you all like to find out how pizzas are made and how many types of pizzas are there?" The children expressed an interest and this became their Project.

Whether the idea for the Project emerges from the teacher or the children, finally they have to collaborate to develop the Project and take it forward. In the case of younger pre-primary learners, the teacher may have to take a more active role in getting the Project started as compared to older children who may be more curious, may have more motivation to pursue an inquiry, and may be able to articulate more clearly what is it that they want to find out.

Another challenge of doing Projects with pre-schoolers is that they have had less varied experiences as compared to older primary school-going children. Because of this, they would share fewer common experiences regarding the Project topic with their classmates. Thus, this age group requires the teacher to dedicate more time and effort to provide common experiences and also encourage curiosity and interest in a topic. We have discussed how to build common interests a little further in the Unit.

The following are points the teacher needs to keep in mind while selecting a topic for the Project.

- i) Generally, concrete and simple topics are more suitable for young children.
- ii) The topic should be developmentally appropriate, culturally relevant, and one with which the children are familiar in their everyday life. It should also appeal to a majority of the children in the class. If the topic has emerged from the children themselves, this aspect will be taken care of. For example, the topic of pizzas was appropriate for Salma's group of children, because it was an urban preschool and most of the four-year-olds had eaten pizza a few times, as Salma found out when she asked them later. But this topic may not be relevant in a rural context or a lower-income group where children do not have a chance to eat pizzas.
- iii) It should also be a topic that is worthy of study and have future learning value for children.
- iv) The teacher needs to ensure that there are enough resources nearby so that the children can explore the topic freely while also attaining the curricular learning goals through it.
- v) The teacher should keep in mind what the locations are nearby where the children can go for field visits for investigation of the selected topic. This is especially relevant as children often want to revisit a location during the course of the Project. For example, for Project work being carried out in a farming village, the topic of 'tractors' would be more suitable than the topic of 'airplanes' as being near a farm, children can go to investigate the tractor many times. The topic of 'airplanes' becomes appropriate for children whose school is located near an airport, and some of whose parents may also be employed in the airport, which may enable them to get an entry into it.
- vi) During the selection of the topic, you may find that the children in the group may have varied interests. While the teacher should encourage particular interests of children, she should avoid getting drawn into multiple topics when children are just learning how to carry out Projects. It is very difficult to simultaneously take up multiple Projects on different topics with a class of young children.

Generating Interest in Topic

It is possible that during the initial phase of the Project, only a few children show an interest in finding out something about the topic while others mainly listen. Not all children are equally involved in the topic. Keep in mind that some children take time in being drawn into a Project. There may also be some children who barely participate in the Project. Even though these children do not actively contribute to the Project, you will find that they are interested in what the other children are doing — they will observe the Project's progress and sometimes take part in discussions about the Project.

If the topic is initiated by the teacher or if it is not familiar to some children, the teacher needs to plan activities that would help the children build common experiences about the topic. For example, the teacher can tell the children a story or share her own experiences about the topic. She can also introduce a Project-related object among their other play materials. Having common experiences about a topic increases the chances that all the children would contribute to the Project-related discussions, formulate questions, and have ideas about how the Project should proceed. The point to understand is that even if the teacher suggests a topic, the children need to get involved in it to pursue it further as their idea.

During this initial stage, when children are in the process of exploring a topic to select what they would finally like to work upon, you need not allow a longer duration of time in the day's schedule for Project Work. As you gauge children's interest in a particular topic, begin by allotting a longer time slot for the Project, slowly increasing the duration as the interest in the topic grows.

b) Sharing Prior Knowledge and Experiences related to Project Topic:

Once the topic is selected and the teacher has gauged that most children have some background information, the next step is to identify what exactly the children already know about the topic. Discussion is one way of doing this. Another is to encourage the children to represent their experiences related to the topic through drawing, dramatic play, art, storytelling or building with blocks. These activities are evident at each stage of the Project. Whatever changes, is represented through these activities. These forms of representations may become richer, intricate and more descriptive as children move deeper into the Project and gather new information and experiences.

As the children bring out what they know about the topic, the teacher may visually represent this prior knowledge on a chart or a board through the creation of lists, webs or drawings so that a base understanding of the topic is clear to all children in the class. In case the children are not able to read, the teacher may also draw pictures next to written words on the web. She can also ask the children to draw something.

Figure 2 shows a web created by the teacher after children discussed the topic, representing children's prior knowledge on the topic 'cows'.

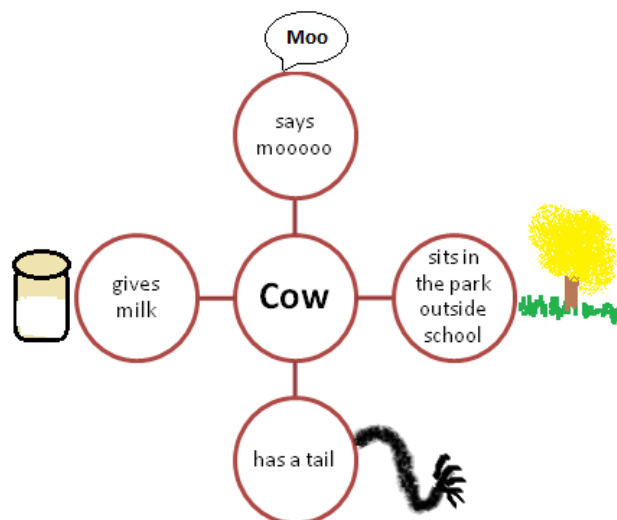


Fig. 2: Children's Prior Knowledge on the Topic 'Cow'

Webs give the teacher a chance to understand which aspects of the topic are most interesting for the children and also those aspects which are to be further clarified and investigated.

All the representations created during this initial stage and the subsequent stages should be labelled, dated and saved by the teacher. A record of these presentations will show how children’s understanding and thinking developed over a period of time with respect to the Project. These records will be used during the culminating event (final activity) of the Project, described in the Sub-section 29.3.3 of this Unit.

- c) **Identify the Research Questions guiding the Project Topic:** Next, the children, with the guidance of the teacher, list the ‘research questions’ for the Project. These are the questions children want to answer, through this Project. This helps the children understand clearly the aim of doing the Project. The younger pre-primary learners need more support to develop questions. The teacher may even purposefully drive children towards a question. For instance, she may bring an object related to the topic to the classroom and use prompts like — “*Would you like to know how this was made?*”, “*What do you think...?*”, “*How do you think ... happens?*”

Besides writing down the questions, the teacher would need to visually represent these questions on the chart or the board for children through words, diagrams, or drawings because children would not be fluent readers at this stage (See Figure 3). For example, in a Project about ‘cows’, the teacher represented children’s questions on the chart paper in the following way.

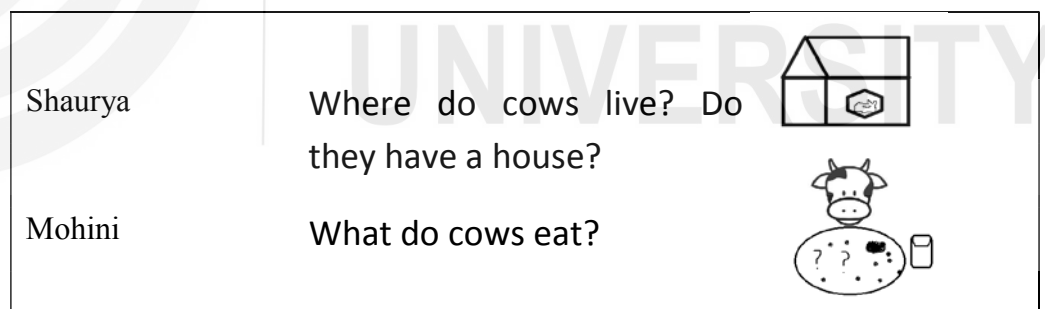


Fig. 3: Visual Representation of Questions for Children

The advantage of displaying these questions in the classroom is that the Project remains in the children’s minds even after the discussion on the questions ends, the children may have additional ideas about a question or add a detail to it. In fact, as the Project proceeds, it is not uncommon that more questions are added to the chart or questions are modified during Phase 1 and Phase 2. The teacher may even find that the focus of the questions changes as the Project progresses. This shows the dynamic nature of the Project approach.

While formulating the questions, the children are also encouraged to predict what the answers are likely to be and discuss the basis of their predictions.

- d) **Arranging Classroom Space and Material:** The teacher may also arrange the classroom space to prepare for the Project. Since many Projects in the preschool involve a construction activity (for example, in a Project on animals, children constructed a zoo), it is a good idea to assign a large space for the Project Work, either inside the classroom or in the corridor outside or in the outdoor play area. This selected area should be such that it could be comfortably left undisturbed during the periods when the children are being involved in non-Project activities. This would give the children a chance to return to the Project, reflect on it and also add some detail. Many pre-primary classrooms are divided into learning areas like ‘Art area’ and ‘Science area’. The teacher can also dedicate one area for the Project topic or convert an existing learning area to fit the Project. For example, the block area can be used to make a zoo during the Project on the topic ‘animals’.

Also, the Project may require the children to create smaller constructions like clay models or drawings. The teacher needs to think about where she would store this work. If she decides to display these objects, she would need to think about how she would do so. The teacher needs to collect the materials required for the Project.

29.3.2 Phase 2: Collecting the Information

During this stage of the Project, the children collect information to answer the research questions formulated in Phase 1. For this stage, the teacher would need to allot longer time slots for Project activities in the day’s schedule – may be up to half a day. Depending upon what needs to be done in the Project, time may be allotted for it daily, once a week, or 2-3 times a week. The following are the activities that take place during Phase 2.

- a) **Preparing for the Investigation:** Before beginning the actual collection of information, the teacher needs to plan out certain aspects:

i) ***Selection of Site for Field Visits***

Many Projects involve field visits outside the classroom. Field visits in a Project are different from other field visits in the curriculum. It is because, in a Project, the children visit the site with certain objectives in mind — they have specific questions they want to be answered. In the case of other field visits, the focus is broader. For example, in a regular visit to a zoo, the aim would probably be to see as much of the zoo as possible in the given time. But in a Project-based field visit to the zoo, the children would spend more time in a particular area, based on the questions they have.

For young learners, the Project field site should be easy to reach. The teacher can talk to the personnel at the field site or even visit the site herself in advance to find out how suitable it would be — will it have space for the whole class? Will it be safe for children? What things would interest the children at the site? Are there any objects at the site which the children can carry back to the classroom? Who would be the people at the site with whom the children would be interacting?

ii) ***Preparation of the Personnel***

Various adults involved in the Project need to be prepared to support the children’s investigation.

- The teacher needs to ensure that the people at the field site know what to expect from the children.

- Parents also can be involved in the Project — they can help children in the collection of any Project related objects or information. They can also volunteer as accompanying adults on the field trip.
- All adults accompanying the children on the field trip (school staff or family/community volunteers) need to be given clear instructions about how the children will be supervised. You must ensure that there are sufficient numbers of adults accompanying the children during the field visits.
- Any expert who will be interacting with the children would also need to know what to expect and what is expected from them.

iii) *Preparing the Children*

During the investigation, the children would need to use some skills like counting, drawing, writing, tallying, observing, or asking questions. Many times, these skills are new to the children. Children would need to practice these skills before they go out to collect information. This will make the investigation process easier. For example, if they plan to interview/talk to an expert, children will need to be supported to prepare a list of questions or talking points before they go to meet him/her. They may also need to practice how to ask questions before they go into the field.

The children also need to be told the rules they have to follow while in the field. To collect the information, children can be divided into pairs or small sub-groups, with each sub-group given the task of finding the answer to a particular question or doing a particular task. For instance, during the field visit some children could be responsible for collecting an object; the second group could document what they see through drawings; the third group could be responsible for asking questions to the expert. Later, the work done by each of these sub-groups would be discussed and compiled. For example:

In a Project on ‘vehicles’, the children were divided into two groups. Each group accompanied by a teacher, stood on opposite sides of the road. They had to count the number of cars that went by in the next 10 minutes. The children knew the counting sequence till 20. However, the teacher asked them to use a tally mark for each car that passed and then count all the tally marks later. She suggested this so that children do not miss out on any car. A few children in each group kept an eye on the cars that came and as they reported the passing by of a car, others recorded this observation as a tally mark. Later, the teacher asked each group member to count the tally marks that had been noted by their group. If a child counted incorrectly, some child from the group was sure to point that out. Later, the two groups shared their findings.

iv) *Organizing the Materials Needed*

The teacher needs to see what needs to be carried to the site for the fieldwork. For example, paper for observational drawing, crayons, camera, and teacher-prepared data collection sheets which aid in recording the information – these may include tally sheets, counting sheets, and sequencing sheets; other than this, you may need loose sheets for writing and drawing. Figure 3 shows an example of a data collection sheet (tally sheet) used by children to record the

information during a Project on 'Vehicles'. An example of a sequence sheet is given in Section 29.4. These data collection sheets are also called 'graphic organizers' as they visually depict the data, children have to collect and also help the children to represent the collected data visually. Figures 4 and 5 show two types of 'graphic organizers' created by the teacher to help the children collect the necessary data.

Fig. 4 shows the tally sheet created by the teacher for children to use to note down the number of different car parts. Children can make one mark in a box or colour the box to indicate one observation. So here they are using one-to-one correspondence to represent quantity — something which can be done by children who do not yet know how to count and write numbers.




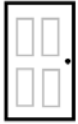

Tally Sheet						
Name:.....			Date:.....			
How many parts of a car?						
 Tyre						
 Mirror						
 Window						
 Door						
 Lights						
	1	2	3	4	5	6

Fig. 4: Tally Sheet filled by a child on 'Parts of a Car'

Figure 5 shows the tally sheet created by the teacher for the Project topic 'Lunch' to help children remember the questions they want to ask the expert

and then represent what they had gathered during the interview. In this Project, a group of children decided to interview the expert — the kitchen in charge of their school. To document this interview, the teacher decided to write each question on an individual sheet of paper with a picture symbol to help the children remember what they wanted to ask the expert. Each child was given one sheet. Later each of these sheets were compiled in the Project ‘lunch information book’.



Fig. 5: Question Sheets created by the teacher for the children on the Topic ‘Lunch’

Source: Floerchinger, J. (2005). The Lunch Project. *Early Childhood Research & Practice*, 7(1), n1; Fig.28: <https://ecrp.illinois.edu/v7n1/floerchinger.html>

In the Project on the topic ‘Milk’, parents were involved in the investigation through a ‘take-home survey’. Each child took home a checklist (including the pictures and names of milk-based products, such as *paneer*, *kheer*, *ghee*, *dahi*, *kulfi*, etc.) to find out what milk-based products were in the house. The teachers sent a note along with the checklist of the milk-based asking them to participate in the Project.

b) Carrying Out the Investigation: This is the part of the Project where the children collect information to find out answers to the questions they had identified. Investigation activities can include the following:

- i) Visiting a site to do fieldwork
- ii) Talking to /interviewing people at the field site, or experts who have been invited to the classroom for a visit
- iii) Exploring an object first-hand
- iv) Looking up books or magazines

An integral part of field investigation is the representation of their findings by the children through drawing, writing, filling data collection sheets (described earlier), or taking photographs. They may also collect some objects to bring back to class. So some children may be responsible for drawing what they observed. Another group may be engaged in filling the tally sheet and yet another may note down answers to interview questions in

a ‘yes/no/sometimes’ format. A fourth group may take photographs.

After the field trip when children return to the class, the children usually discuss what they observed and noted during the data collection process — they share what they liked during the investigation, what surprised them, what answers they got to their Project questions, and what they found to be interesting. All the information or objects collected during the investigation, and the various forms of representations children have created during the investigation can also be used to carry the discussion forward. If children have worked in sub-groups during the investigation, this is the time to present their work to class members and discuss each other’s work. During this discussion, you need to encourage dialogue among children – where children ask each other questions and suggestions are provided by the children. It should not be that only the teacher asks questions and children respond. Throughout the Project process, the teacher’s ability to facilitate discussions — encouraging children’s involvement, responding to them, drawing out their thoughts, ideas and questions — determines how much children gain from the Project experience.

This discussion sometimes leads to more questions which in turn leads to further investigation. This process of collecting information, representing the information collected during the field visit, and then discussion may be repeated several times till children have no further questions, and their curiosity is satisfied. It may also happen that the children start showing interest in a new topic. Then it is time to move to Phase 3 of the Project.

29.3.3 Phase 3: Concluding the Project

During this phase, the children summarize all that they have learnt and share it. The following are some ways of sharing:

- a) **Discuss and Review Findings:** As described earlier, after the investigation, the children are involved in discussions where they talk about what they have learned through their investigation. At this point, the teacher can create a new web called ‘What we now know’. She can also use the earlier web drawn at the beginning of the Project, where the questions that they had wanted to investigate were represented and now they can write down the answers to the ‘research questions’ of the Project.

After this, the teacher and children discuss how the children will record and remember all that they have learnt during the duration of the Project. They can carry out activities to culminate the Project — they could create a book or a poster that tells the story of their Project; they could tell their experience through a dramatic presentation; they could create a bulletin board display, a pictorial art gallery or construct something which represents their findings. They could decide to hold a culminating event like an exhibition or a presentation on a particular day when parents, community members, children and teachers from other groups can be invited to view the children’s Project findings. In an exhibition, all the work done by the children from the start of the Project — drawings, artwork, pictures, charts, stories, interview findings can be

displayed. Children can also use music, dance, drama, storytelling to represent their findings.

- b) **Complete the Culminating Activities:** Having decided on the culminating activities, the children then get busy carrying them out. The children carry out the activity and share it with others.
- c) **Reflection:** Towards the end of the Project, the teacher needs to document and reflect on what has been achieved through the Project. She will review what goals of learning have been met through the Project. She will also think about possible future Projects which might interest children.

Remember, while the steps and phases of the Project approach have been described separately and distinctly to help you understand how the Project proceeds over time, in practice while carrying out the Project, you may find that some steps described in the various phases actually overlap with each other. For instance, you may find that while ‘generating interest in the topic through building common experiences’ and ‘sharing prior knowledge and experiences related to the Project topic’ are mentioned in two separate steps in Phase 1, in practice, these two steps may overlap.

Also, you would note that discussion about what is learned during field investigation is mentioned both in the last step of Phase 2 (‘Carrying out the investigation’) as well as in the first step of Phase 3 (‘Discuss and Review findings’). Discussion after the investigation in Phase 2 gives the teacher an idea about what the children have learnt from the investigation and also if they have more questions related to the Project. If there are more questions, the discussion leads to further field investigation as described in the last step of Phase 2. However, if the discussion reveals that there are no more questions the children want to know the answer to, then the Project takes a turn towards culminating activities described in Phase 3. In Phase 3, the discussion is about what they have learned through the entire Project investigation experience and how they will record and remember all that they have learnt.

To understand how Projects are carried out, we are giving two actual examples of Projects in the subsequent sections.

Check Your Progress Exercise 2

- 1) Fill the given table with various phases and steps involved in Project Approach.

Phase	Name of the Step
I: Initiating the Project	a)
	b)
	c) Identifying the research questions guiding the project topic
	d)
II:	a)
	b) Carrying out the investigation
III:	a)
	b)
	c) Completing the final activity

- 2) What can a teacher do to discuss and review the findings during phase 3 of the project?

.....

.....

.....

.....

.....

29.4 PROJECT EXAMPLE ‘A’

** Adapted from “The pizza parlour Inquiry Learning Project’ from pgs 110-115 of Krogh, S. & Morehouse, P. (2014). The early childhood curriculum: Inquiry learning through integration (2nd ed.) Routledge: New York.*

The following Project was carried out with a group of 5-6-year-olds (the group was a mix of kindergarteners and class 1 learners). This group of children was familiar with conducting Projects. One corner of the class was dedicated to displaying work-in-progress in class, including Projects.

Phase 1: Initiating the Project

a) Selection of the Topic

The teacher shared with the children the idea of starting a class Project. She explained to them that one of the aims of the Project would be to transform a classroom corner and create a dramatic play corner on the Project topic decided by the class. The children showed excitement at the prospect of starting a Project and remodelling their own ‘class corner’. The first thing they had to do was to decide on the Project topic.

Children suggested various topics like hospital, bakery, petrol station and pizza restaurant. With a vote, the children decided to carry out a Project on a pizza restaurant. Since there were 3 restaurants serving pizza near to the school, this topic offered options for possible field visit sites.

b) Generating Interest in the Topic and Sharing Prior Knowledge

With guidance from the teacher, the children shared their prior knowledge regarding pizza restaurants through different forms of representations. Children made drawings that illustrated a memory they had about a pizzas restaurants they had visited, or if they hadn’t visited such a restaurant, then any other pizza-related memory. The teacher helped them to write a couple of words related to their drawing on their sheets. These drawings were displayed in the classroom. Later, these were compiled and bound together.

The teacher also organized discussions on the topic ‘pizza’ and wrote down the main points that emerged on a chart paper with the title “*What we know about pizza restaurants?*” The teacher displayed this chart on the class notice board. Some of the points voiced by the children and noted by the teacher were:

- Some pizza restaurants do not have bathrooms.
- Some workers in the pizza restaurants wear hats.
- They make pizza of different sizes.
- Pizza has cheese on it.
- They give sauce with pizza.
- Pizza comes with different toppings.

Sharing of prior knowledge about the topic was carried on for many days. The teacher also created an illustrated word chart, which contained words that had emerged during children’s discussions and through their drawings – she hung these word charts in the classroom. Children liked to ‘read’ these word charts.

During this period, the children were involved in many activities related to the topic ‘pizza’, both planned by the teacher as well as unplanned. For example, during clay play, children would make clay pizza.

c) Identify the Research Questions Guiding the Project

One day, the teacher and the children had a discussion to generate a list of questions the children had about pizzas and pizza restaurants. These were listed in a chart paper titled, “*What do we want to know about the pizza restaurant?*” Some of these questions were:

- How are pizzas made?
- What are the different types of pizza toppings?
- What do they sell other than pizza?
- What kind of uniforms do the workers wear?
- What shape are their tables?
- How many chairs and tables are there?

Next to each question, the teacher also sketched simple drawings to represent the question. For example, next to the question “What shape are their tables?”, a picture of a table was drawn. This chart was displayed in the classroom. The next day, the children and teacher had another discussion to figure out different ways the children could find answers to the questions, including — talking to experts or observing or searching in books. Together, the class discussed what method/s would be best for finding the answer to a particular question. To represent this discussion, the teacher drew a symbol key of the methods on the chart — “E” for experts, “O” for observing and “B” for books. Then, as directed by the children, she wrote “E”, “B” and/or “O” next to each question, representing the method that would be used to find its answer.

Phase 2: Collecting the Information

a) Preparing for the Investigation

The children, with the help of the teacher, wrote a letter to the manager of a nearby pizza restaurant to request permission for visiting. The manager responded positively and so a field trip was arranged.

Children were divided into ‘committees’ which would be responsible for finding the answers to a certain cluster of similar questions. Some of the committees formed were the Kitchen committee, Menu committee, Workers committee, and Dining area committee. Over the next few days, each of the committees decided what materials they would need during the field trip. Throughout the preparation time, children also looked at books on the topic and collected information from other media (internet) about the topic.

Since this group of children had done Projects before, they knew how to use different types of data collection methods such as drawings, tally charts, sequence sheets, noting responses to oral interviews by ticking the option ‘Yes/No/Sometimes’ in record sheets.

Using the following sequence sheet, the children recorded the process or the steps in making the pizza.

Sequence sheet

Name:.....

Date:.....

How is the pizza made?

1.	2.	3.
4.	5.	6.

b) Carrying out the Investigation

The children were welcomed at the pizza restaurant by the manager and a staff worker who were also the on-site guides/experts for the Project. Children began their investigation professionally and politely, keeping in mind their plan. They used graphic organizers to collect data such as recording the steps of making the pizza in the oven, noting the shape and number of tables, noting the time taken in baking a pizza, listing the different types of ingredients used. Children of the ‘Workers committee’ interviewed the on-site experts, noted their answers in a ‘yes/no/sometimes’ record sheet, and did observational drawings of the two interviewees individually. Each child used 1-2 graphic organizers and did at least one observational drawing.

After the children returned to class, each group shared what they learned during the trip.

Phase 3: Concluding the Project

To conclude the Project, the ‘investigators’ set out to construct a pizza restaurant of their own in the ‘display corner’ of the classroom. This was their culminating activity. During the next few weeks, at different times of the day, the children worked to create the ‘pizza restaurant’ in their class. Play-dough was used as pizza dough which was to be rolled in three sizes—small, medium and large; the various pizza toppings were made of paper which was kept in separate labelled containers; the pizza oven was recreated using a cardboard box; ‘menus’ were written with prices and a cash register was kept. While preparing the ‘pizza’ in their ‘restaurant’, children would wear aprons. There was also paper money that was kept which the ‘customers’ would use to buy the pizzas.

Family members and the school principal were invited to the opening of the pizza restaurant, marked by a ribbon-cutting ceremony. The children also presented a brief story about their restaurant at this concluding event.

29.5 PROJECT EXAMPLE ‘B’ (Project Approach in the Indian Context)

**Chetan Balwadi is a Laboratory Nursery School of the Department of Human Development and Family Studies, Faculty of Home Science, The Maharaja Sayajirao University of Baroda. The Project Approach is a central feature of the curriculum in Chetan Balwadi. In 1997, the nursery school decided to reconceptualize its Project approach based on Lilian Katz’s work. Following is a brief description of the month-long Project carried out with the 33 children of the Kindergarten class of Chetan Balwadi on the topic of ‘Books’.*

Phase 1: Initiating the Project

a) Selection of the Topic

The teacher of the kindergarten group decided to start a Project on ‘Books’. She decided on this topic as soon as the children would be involved in early literacy activities. The teacher felt that a Project on books would be a good way to initiate children into early literacy. Through this Project, the children would be encouraged to ‘read’ books and discover who wrote them and how.

b) Generating Interest in Topic and Sharing Prior Knowledge

The children were introduced to the topic through a discussion about different types of books — story books, magazines, prayer books, comics, etc. The class discussed what books looked like, using terms like — big/small, thick/thin. The teacher displayed different books in the classroom like pop-up books and hard-cover books which were explored and handled by children.

Children were divided into groups and given different types of books to explore and figure out what type of book it was. Children would observe different features of the books given, discuss and give reasons for their conclusions. For example, one group which was given a school textbook concluded that it was a ‘math book’ because it had numbers and there was a box to write the answers.

c) Identify the Research Questions Guiding the Project Topic

Through discussions, the questions which emerged were:

- How are books made?
- Where do books come from?

d) **Arranging Classroom Space:** It was decided that the doll house corner of the classroom would be converted into a library.

Phase 2: Collecting the Information

a) Preparing for the Investigation

A visit to a book store and the University Printing Press was planned to find the answers to the questions. The class was divided into three groups. One group decided on questions that would be asked to the book store owner, the second group thought of questions for the printing press personnel and the third group came up with questions they would ask their parents to find out their reading interests. Some of the questions developed for the book store owner by the children were:

- Where do you buy the books from?
- How do they come to your shop?
- Do you have to pay money?
- What do you do with the money that you get?
- Do we need to pay money to buy books?

The teacher arranged for materials children would carry during the field trips – clipboards, pencils, crayons, etc. She also took a camera along to document the trip.

b) Carrying out the Investigation

The field trips to the book store and the printing press took place. Ten children accompanied by one teacher and one child-teacher visited the book store. Children enthusiastically asked questions to the book store owner who answered them patiently and was happy to receive the children. Another group of around twenty children, four teachers, and two children-teachers visited the printing press. Here the children saw many things related to the printing process — huge piles of paper, different kinds of machines used for printing, including the one which cuts paper, etc. During this second field visit, children were rather awestruck and asked comparatively fewer questions. Nonetheless, they were very curious to see everything. The staff at the press was also very welcoming and warm.

In both the field visits, children drew what they saw using their clipboards. In these drawings, they were able to represent their detailed observations. The field trips were greatly enjoyed by the children. On the way back from the trip, they discussed all that they saw. They had observations such as, “*What a big machine!*” and more questions like “*How were the lines printed on the paper?*”

After completing the two field trips, representatives from field visit groups shared with the whole class what they had seen. They used their drawings to describe the field sites. A few children in the class even asked these children questions about the visit.

As the children's questions continued, two more field trips were organized. This time, the children visited the library and a bookbinding shop. So the investigation of the topic 'books' was carried forward.

All the children in the class also interviewed their parents. They brought to class the filled questionnaires. Children were divided into small groups which coded, compiled and compared the data collected with the teacher's support.

Also, throughout this period, the doll house corner of the classroom was turned into a 'library' which had a lot of books. Some children were in charge of issuing 'tickets' to those coming to the 'library' and 'stamps' were used to mark the books. Children used this space like a library. Also, children had to sign on a board outside to enter the library area. Thus, reading and writing activities were automatically taking place.

Phase 3: Concluding the Project

Children were involved in various activities which helped them represent their learning about the topic including the creation of a class library, drawings, development of a storybook and making/stitching of small diaries. At the end of the fourth week, the children did not have any more questions about books and expressed their need to change the topic.

You can read more examples of Projects at the website link <http://ecrp.uiuc.edu/byProject.html>. This is the link for the Projects discussed in the open-access electronic journal titled 'Early Childhood Research & Practice'.

29.6 ADVANTAGES OF THE PROJECT APPROACH

The **foremost** advantage of the Project approach is that learning takes place in a meaningful context. Children are enthusiastic about finding out what they find interesting and learning happens as its outcome. The teacher's focus is on the learning outcomes but for the children the process becomes enjoyable and so it does not become formal learning for them.

The **second** advantage is that the Project approach is strongly aligned with the principles of integrated learning. All domains of development as well as various subjects can be supported through the activities and processes involved in a Project.

Thirdly, the Project requires children to ask questions and find the answers to those questions by being involved in hands-on activities. Children practice their already known skills and learn new skills to find answers to their questions. Thus, Projects give children opportunities for active learning i.e., to actively create their knowledge.

Fourthly, the Project approach fosters certain personality traits or dispositions which have a life-long benefit. Children develop self-esteem as they realize that they are capable of finding things on their own. Furthermore,

as the Project requires children to be involved in an extended effort over a long time on one topic, their capacity to persist in a task and to overcome obstacles by being problem-solvers becomes stronger. Projects also encourage children to be curious, learn to take initiative, manage responsibilities and build skills of teamwork.

29.7 CHALLENGES OF THE PROJECT APPROACH

There are some constraints that you may face while carrying out the Project, particularly in the Indian context.

The basis of an inquiry-based approach like the Project Approach is that children should inquire i.e., ask questions. However, in the Indian cultural context, children are generally not expected or encouraged to ask questions. So, children may find it difficult to formulate questions to investigate.

Another cultural constraint is that in India, the teacher is considered to be a respected authority figure whose words are not meant to be challenged or questioned. This makes it difficult to create a space of open discussion or debate where children would express their views and freely contradict each other. In fact, it is natural for Indian children to ask their teachers what to do rather than voice their opinion. Children are satisfied with an answer only if their teacher confirms it. They may not trust their own responses or the experiences of other children.

Projects require lots of documentation through different media. Thus, it requires a lot of materials. Also, as part of the investigation process, children would need to go on field trips. This may require vehicles or additional expenses. Thus, the expense can be a constraint while doing Projects.

Check Your Progress Exercise 3

1) If you were to conduct a project on the topic 'Vehicles' with a group of pre-primary learners, what will/can you possibly do in the given steps?

a) Research questions/aspects to be explored

.....
.....
.....

b) Arranging classroom space and materials

.....
.....

c) Preparing for the investigation

.....
.....

d) Carrying out the investigation

.....
.....

2) Why the Project Approach is more effective than the traditional approach with pre-primary learners? State three reasons.

.....
.....
.....
.....
.....

29.8 USING THE PROJECT APPROACH TO MEET CURRICULAR GOALS

As mentioned earlier, the very process of the Project encourages particular skills in children, such as skills of scientific inquiry, reasoning and problem-solving. During a Project, children also get opportunities to strengthen their cognitive like classifying, counting, reasoning skills, predicting, and asking questions. As children work in groups and interact with experts, their social and emotional development is fostered. Children’s language and literacy development are fostered as Projects provide many opportunities to speak, discuss, read and document their learning through writing and drawing. When children use graphic organizers, they learn how to record and represent actions, sequences Projects support the development of creativity as children are constantly engaged in thinking of ways of finding answers to what they find intriguing. Children’s physical development is also fostered as children use the fine motor skills to draw, write and construct and gross motor skills for investigating at the field site or for putting up a presentation. Thus, the Project approach gives many opportunities to foster development in all developmental domains and disciplines and reach curricular goals.

To use the Project approach optimally to attain curricular goals, the teacher should become familiar with the goals of learning for her group of children. She also needs to know what observable behaviours would indicate that children have attained a particular goal. The teacher needs to keep these goals in mind when deciding upon the appropriateness of a topic for the Project, identifying possible activities children would do under the topic and how these activities would be carried out and the methods children would use to document their investigation.

To understand how the Projects can help to attain the learning outcomes and goals, let us take the example of ‘Project example B’ given in Section 29.5 of this Unit.

Here, the teacher decided to take up the topic of ‘Books’ as she wanted the children to initiate children into literacy activities. She hoped that through this Project, the children would be encouraged to ‘read’ books.

The following Tables shows how the activities carried out during the Project helped to attain some curricular goals. Examples of the goals of learning and development which the teacher linked to the three activities carried out during the ‘Books’ Project follow in Table 29a, 29b and 29c.

Table 29a: Goals and Learning during Phase 1 of the Project ‘Books’

Project Phase	Activity	Skills/ Concept Learned	Discipline	Domain/ Sub-Domain	Goal	Observable Behaviour
Phase 1	Discussing and exploring different types of books	<ul style="list-style-type: none"> • Conversation Rules • Vocabulary: descriptive and comparative words • Observation Skills • Differentiate different types of books 	<ul style="list-style-type: none"> • Language • Maths 	1. Language: Communication and speaking 2. Cognitive: Observation Classification, Reasoning and Problem Solving	Goal 13 (conversations to gain information) Goal 8 (observes and describes objects) Goal 9 (compares objects)	Participates actively in class discussion Child explores books, uses terms like- big/small, thick/thin during exploration
Phase 1	Small group activity to figure out what type of book	<ul style="list-style-type: none"> • Observation skills • Reasoning skills • Identify different types of books • Teamwork 	<ul style="list-style-type: none"> • EVS 	1. Cognitive: Scientific inquiry, reasoning and problem solving 2. Social and Emotional: relationship with other children	Goal 8 (observes and describes objects) Goal 10 (asks questions/makes predictions) Goal 4 (functions as a member of the group)	Child can guess the type of book by identifying a particular feature Works in a group

Table 2b: Goals and learning during Phase 2 of the Project ‘Books’

Phase 2	Formulating questions for interviewing the expert in groups	<ul style="list-style-type: none"> • Learning to work with others • Asking questions to gain information 	<ul style="list-style-type: none"> • Language 	1. Social and emotional: relationship with other children 2. Cognitive: Scientific inquiry, reasoning and problem solving	Goal 4 (functions as a member of the group) Goal 10 (asks questions/makes predictions)	Work together to formulate the question Can formulate questions
Phase 2	Interviewing experts	<ul style="list-style-type: none"> • Asking questions to gain information • Representing/ recording the information gained 	<ul style="list-style-type: none"> • Language 	1. Language: Attending and understanding/Communication and speaking 2. Early literacy	Goal 11 (responds to communication) Goal 13 (conversations to gain information) Child represents objects/actions	Child asks questions and understands the answers Child records information gained from the interview
Phase 2	Observational drawing during the field visit	<ul style="list-style-type: none"> • Observation Skills • Represents what is observed through drawing • Fine Motor Development 	<ul style="list-style-type: none"> • Art 	1. Fine Motor Development 2. Early Literacy 3. Cognitive: Scientific Inquiry, Reasoning and Problem Solving	Goal 2 (Development of small muscles) Uses drawing to represent objects /actions Goal 8 (observes and describes objects)	Can draw Draws and explains what is drawn Represents what is observed

Phase 2	Turning the doll house into a library and using the library	<ul style="list-style-type: none"> • Imitation • Writing • Pretend to play with others 	<ul style="list-style-type: none"> • EVS 	1. Cognitive: Scientific inquiry, reasoning and problem solving 2. Creativity 3. Fine Motor Development 4. Early Literacy 5. Social and Emotional: Relationship with Other Children	Goal 11 (sequential thinking) Goal 2 (child shows imagination during play) Goal 2 (development of small muscles) Writes and reads Child engages in pretend play with others	Understands the process of taking the book from the library Involved in pretend play with others Uses stamps and writes Writes name, reads books Plays with other children
---------	---	---	---	---	---	--

Table 29c: Goals and Learning during Phase 3 of the Project ‘Books’

Phase 3	Development of storybook	<ul style="list-style-type: none"> • Drawing • Writing • Creativity 	<ul style="list-style-type: none"> • Language • Art 	1. Early Literacy 2. Cognitive: Scientific Inquiry, Reasoning and Problem Solving	Uses drawing/writing to represent objects/actions Goal 11 (sequential thinking)	Can write /draw to represent the story of the Project Can recall the events related to the Project
---------	--------------------------	--	---	--	--	---

The teacher noted that many of the programme’s goals related to the different areas of development were being reached through the Project.

Since Projects generally involve a lot of documentation (documentation about what children already know, what they want to know and what they learn), the teacher had many opportunities to record children’s learning process, including — children’s observational drawings during field trips, questionnaires filled by children during expert interviews, anecdotal records or statements recorded by the teacher, the story books created by the children, photographs taken by the teacher and observations made by the teacher. This documentation can help the teacher assess children’s progress and see what else needs to be done to meet the curricular goals.

29.9 SUMMING UP

The most well-known interpretations of Project work in ECCE in the contemporary context are the given: a) ‘The Project Approach’ as described by renowned educationists Sylvia Chard and Lilian Katz, and later by Judy Helm as well; and b) The *progettazione* (Projects) carried out in the Reggio Emilia Curricular model.

A project is an in-depth investigation of a topic worth learning more about. The investigation is usually undertaken by a small group of children within a class, sometimes by a whole class, and occasionally by an individual child. The duration of the Project is usually flexible.

There are three basic phases of doing a Project with subsequent steps in each of the phases.

The very first phase is that of initiating the Project. It includes the given:

- Selecting the topic and generating interest
- Sharing prior knowledge and experiences related to the project topic
- Identifying the research questions guiding the project topic
- Arranging classroom space and materials

The second phase in the Project Approach is concerned with collecting the information. It includes:

- Preparing for the investigation
- Carrying out the investigation

The third phase is of concluding the Project: It consists of the given steps:

- Discussion and review of findings
- Completing the final activity
- Reflection

While the steps and phases of the Project approach have been described separately and distinctly to help you understand how the Project proceeds over time, in practice while carrying out the Project, you may find that some steps described in the various phases overlap with each other.

The advantages of this approach are learning in a meaningful context; integrated learning; hands-on learning; and fostering certain personality traits or dispositions which have a lifelong benefit.

The challenges with using the Project Approach are concerned with the Indian culture wherein children do not ask questions and the teacher is treated as the sole repository of knowledge which does not align with the Project Approach.

29.10 REFERENCES

1. Clark, A. M. (2006). Changing classroom practice to include the project approach. *Early Childhood Research & Practice, 8*(2).
2. Danyi, D., Sebest, H., Thompson, A. & Young, L. (2002). The Apple Project. *Early Childhood Research and Practice, 4*(2) Fall. <https://ecrp.illinois.edu/v4n2/danyi.html>
3. Floerchinger, J. (2005). The Lunch Project. *Early Childhood Research and Practice, 7* (1). <https://ecrp.illinois.edu/v7n1/floerchinger.html>
4. Helm, J. H., & Katz, L. G. (2010). *Young investigators: The Project approach in the early years (3rd ed.)*. New York: Teachers College Press.
5. Katz, L. G. (1994). The Project Approach. ERIC Digest. <https://files.eric.ed.gov/fulltext/ED368509.pdf>
6. Katz, L. G., Chard, S. C., & Kogan, Y. (2014). *Engaging children's minds: The Project approach (3rd ed.)*. California: Praeger.

7. Knoll, M. (1997) The Project Method: Its vocational education origin and international development. *Journal of Industrial Teacher Education*, 34, 59-80.

29.11 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) a) False
- b) True
- c) False
- d) False
- e) True
- f) False

Check Your Progress Exercise 2

- 1) Fill the given table with various phases and steps involved in Project Approach.

Phase	Name of the Step
I: Initiating the Project	a) Selecting the topic and generating interest
	b) Sharing prior knowledge and experiences related to the project topic
	c) Identifying the research questions guiding the project topic
	d) Arranging classroom space and materials
II: Collecting the Information	a) Preparing for the investigation
	b) Carrying out the investigation
III: Concluding the Project	a) Discussion and review of findings
	b) Completing the final activity
	c) Reflection

- 2) She can draw a new web with the findings and compare it with the earlier web with the research questions and compare these two.

Carry out various activities to culminate the project such as creating a book or a poster that tells the story of their Project; they could tell their experience through a dramatic presentation; they could create a bulletin board display, a pictorial art gallery, or construct something which represents their findings, or organize a small exhibition.

Check Your Progress Exercise 3

- 1) a) Types of vehicles; uses of vehicles; safety rules, etc.
- b) Bringing vehicles photographs and miniatures to the classroom
- c) Helping children to create survey questions and also ask them
- d) Accompanying children to an automobile showroom to ask questions.
- 2) Learning takes place in a meaningful context; integrated learning is fostered; and hands-on learning is practiced.