

EXERCISES IN ELEMENTARY EXPLORATION

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Teaching children to be aware of the world around them is one of the classical aims of liberal education--liberal in the sense of liberating the individual. A few simple exercises can be worked into the elementary school curriculum to enhance the child's awareness of his surroundings, thereby adding to that child's liberal education. The exercises presented here introduce scale, maps, and spatial relations, and through these increase awareness of one's environs. The material required is minimal--a few maps (either readily available or easily constructed). Photographs, including air photos, would be helpful but are not necessary.

The procedure used is a succession of maps of decreasing scale, i.e. maps covering successively larger areas (and concomitantly successively more generalization). At each stage, salient features are identified and the linkages between places are illustrated. The focal character of places--the fact that different activities occur at different places--is stressed. The maps may be accompanied by photographs, which would ease the students' transition from the comprehension of what they see around them to the comprehension of that abstraction called a map. Throughout the exercise, the child moves from the familiar to the unfamiliar.

Procedure

The first exercise is to map the classroom. Obviously each child is familiar with the area enclosed by the room.

The teacher (or the class) provides outline maps showing the proper shape of the room and the location of such "border" elements as doors, windows, and chalk boards. The children are asked to map the contents of the classroom. For younger children, the transformation from what they see in the room to the "birdseye," two-dimensional view of the map, may be taxing. This should present little challenge for the older children, but the experience may make later exercises more meaningful as they move from the familiar to the unfamiliar. The maps could include the teacher's desk, cloakroom, special equipment, children's desks--really anything in the room. If appropriate to the spatial and functional organization of the classroom, the maps could also show areas reserved for special activities, e.g. a reading area or painting area. This would convey the focal character of place, the fact that some activities are limited to particular, restricted locations. By working on such a large scale, with minimal generalization of shapes and little need for symbols, this exercise conveys the concept of a map as a representation of reality. Having learned this, the students are prepared for the next exercise.

The second exercise revolves around the school. It is here that photos may most profitably be introduced. By leading from ground shots to aerial obliques to an aerial overhead view, the visualization of the area to be mapped could be made, reinforcing the first exercise. Whether photos are available or not, *scale* is reduced from that of the classroom map to enable the entire schoolyard to be portrayed. For upper grade children, the actual mathematical differences between the two scales would be illuminating, but such precision would probably be lost upon younger children.

The school maps could include elements of form, as well as function: the buildings, playground, parking lot, land-

scaped areas for the former; the classroom, cafeteria, specialized parts of the playground, or areas "possessed" by specific groups for the latter. Routes used as one switches from one activity and its place to another activity at another place could also be extended or introduced here, as the case may be.

Having familiarized the class with the two worlds they share--classroom and school--one may proceed to a more complex, more distant world. This third exercise involves the neighborhood, possibly best defined by the area served by the school. Armed with street maps, the students could locate: first, the place they hold in common, the school; second, their individual residences; and third, the typical routes they take to school. Thus the main elements of the school community could be established. Following this, other neighborhood places and activities could be mapped. These might include stores and parks frequented by the children and their families. Barriers inhibiting movement might be mapped, too, if any exist in the area. These might include railroads or drainage channels. Earlier lessons could be expanded through discussion of different land uses and the juxtaposition of these. Travel behavior could also be profitably discussed, and this could include such topics of interest to children as mobility via different modes of transportation, e.g. walking, riding a bicycle, or driving.

Having discussed the neighborhood, the area in which the children spend the bulk of their time, the fourth exercise is to increase the scope (decrease the scale) to the city as a whole. Street maps of the area are required, and it would be helpful if these were supplemented by maps of land uses and landforms. For starters, the children could locate their neighborhood, then expand to their parents' places of employment. Lines could be drawn to connect the two, both on individual maps for each child and also on a composite map for the whole class. This could convey not only the larger scope of adult living but also the inter-

relatedness of various parts of the city. To kindle the children's interest, places of importance to them could be identified, places such as a zoo, stadium, or amusement center. The degree to which this exercise is extended would depend on the time available and the sophistication and interests of the students.

The progression could be completed with still smaller scales: state, region, nation, and world. Communication among places and the products available locally from distant places would be pertinent topics, as would the ways children live in other societies.

Through these exercises the child may develop a keener awareness of the world around him, as well as grasp the essence of maps, the concept of scale, and the spatial dependence we have in a complex, specialized world. Though photographs could be usefully employed, the equipment requirements are really limited to obtaining maps at the appropriate scales. The instructor should be able to ditto maps of the room and school, find street maps of the neighborhood and city, and obtain outline maps of any larger areas desired.

Practice

The ideas outlined above have been employed in the classroom, adapted to local conditions and to the needs and abilities of the children involved. The results were encouraging, especially considering that the class in question was a kindergarten class, albeit one with the school's more mature kindergarten children. Nancy Maack presented the exercises to her kindergarten class in the Las Virgenes Unified School District in Los Angeles County. The rest of the paper is her report of that experience.

Geography for Kindergartners

Thirty-two children from middle and upper middle class homes comprised the class. They measured average to mature

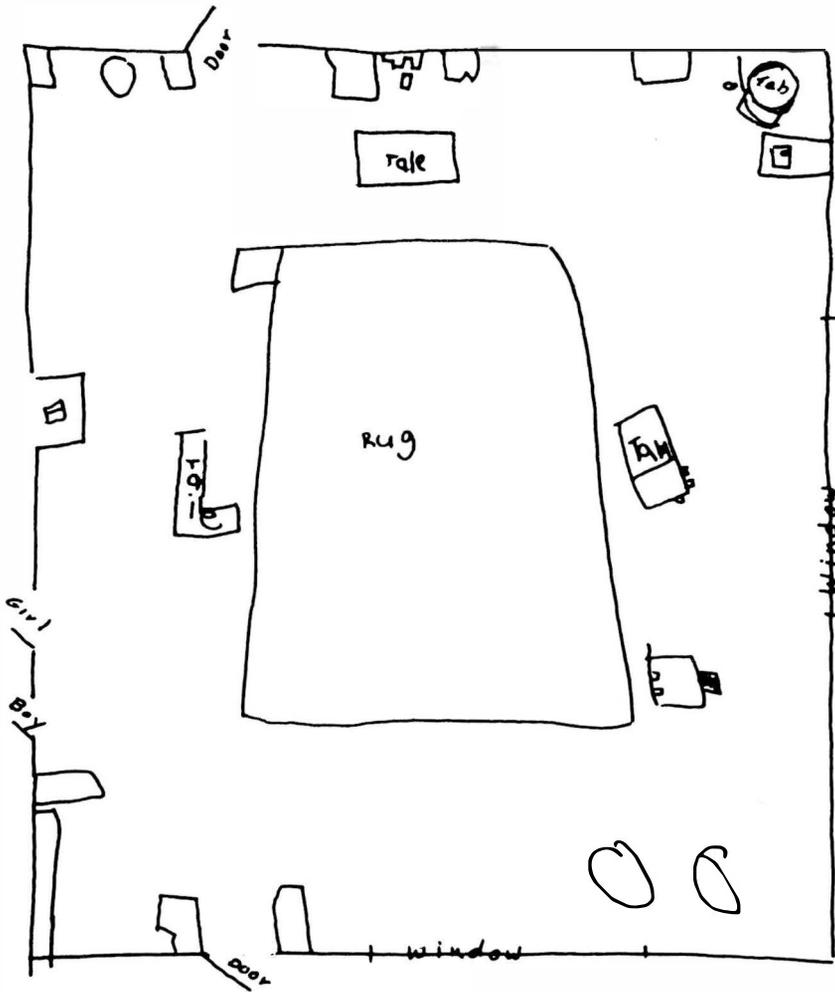
on the Gesell Test of Maturity given before the school year began. The objectives of the geographic exercise were:

1. To expose the children to the cardinal directions and means of finding those directions with shadows and compass;
2. To help the children to read simple picture maps;
3. To enable the children to find their homes and bus stops on a neighborhood map;
4. To expose the children to maps in general and to relate the location of home, school, city, state, and nation;
5. To expose the children to the skills needed in drawing simple maps and to have them try to draw maps; and
6. To have the children go as far as they could in geographic learning without crossing the frustration level.

The unit began at a level to which the children could relate, the classroom. Outside the room, shadows were used to determine directions, and the findings were supported by a compass. The directions were labeled in the room, and all this was reinforced by reading to the children from Franklin M. Branley's *North, South, East and West*,¹ which discusses directions and simple maps.

A few days later a large outline map of the room was presented to the students. Following the prompting of the children, the teacher located the furniture on the map. Then each child was given a small outline map of the room and asked to fill it in. One very good map is reproduced on the facing page. A few of the children were frustrated, but all of them did try. Some of them needed a lot of guidance, but most of the class successfully located the rug and tables. Most of the children seemed to enjoy the exercise and were proud of how well they had done. The proportions of the objects were surprisingly accurate.

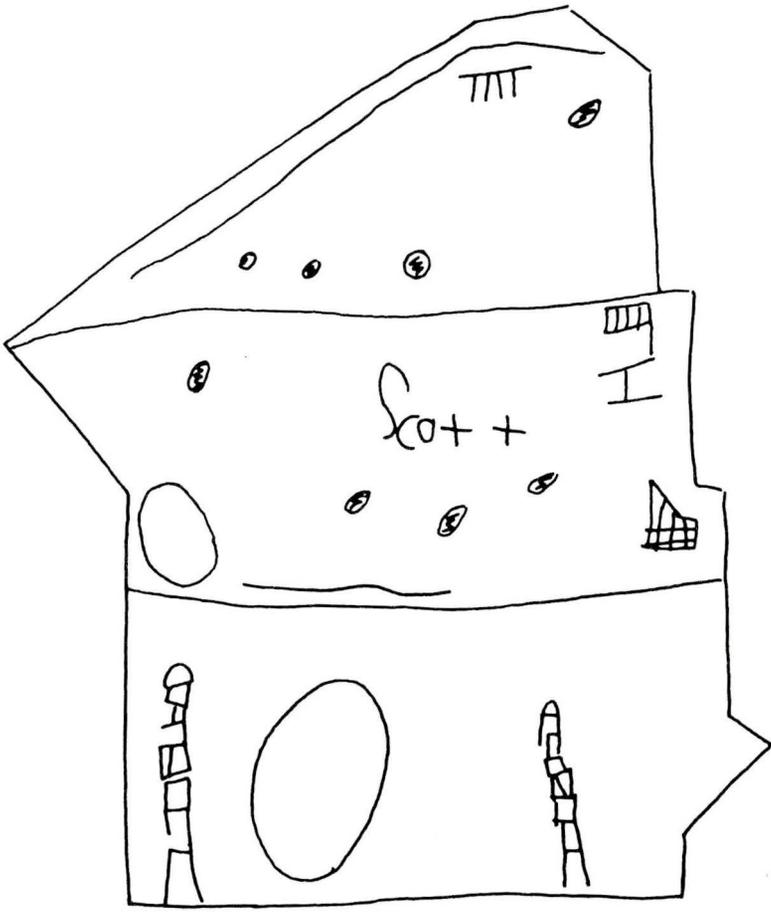
The next step was the playground. Again, a large map for the whole class was used, then smaller individual maps. An outline was provided with little direction on what should be done with the inside area. This exercise was performed



outside so the children did not have to work from memory. A major problem was transforming the three-dimensional world onto a two-dimensional map. The tables were easy, but the swings and barrel were not. Eventually one child drew the swings, and the others filled in the other equipment. The teacher guided them by asking, "Have you forgotten anything?" or "Can you see other things in the yard which you can't see on our map?" After everything was drawn, the map was colored. No legend was included because the children were not regarded as prepared for that concept. The individual maps presented more difficulty than those of the classroom. More children were frustrated, but many were excited and eager. Again, one of the better maps is reproduced opposite. Ten children were unable or unwilling to complete the exercise. The rest did fairly well.

Before leaving the scale of the school, the teacher provided maps for a treasure hunt. This reinforced the meaning conveyed by the maps and showed how useful a map could be. When it was felt that the children had a sufficient understanding of what a map is, the teacher moved to the next exercise.

The neighborhood exercise began with a discussion of the areas in which the children live. No satisfactory map existed for the school's catchment area as a whole, so a composite was made. A large map was drawn on poster board for classroom use. Small houses were cut out of construction paper and identified with a child's initials and house number. The children placed their homes on the map. (Since the teacher had visited each child at home there was an accuracy check.) Guidance was given if necessary, but usually the child either knew where to place the house or obtained help from other children who live nearby. A few days later the teacher asked the children to identify their homes on the map, and this they did with ease, evidence that they understood what was going on. Since the children all took a bus to school, bus stops were mapped.



K1 Playground

The next step was to introduce a map of Los Angeles and places the children had been were discussed. Initially there was trouble because the children did not have a realistic idea of the distances involved in their travels. They wanted to locate Mexico, Palm Springs, and Denver in the Los Angeles area, but they soon caught on. Places such as Disneyland, the ocean, Griffith Park, and the airport were identified on the map.

From Los Angeles it was an easy shift to maps of California and the United States. The children discussed the oceans, states in which their grandparents lived, or where the children themselves had lived. Their excitement over all this was magnified through the reading of Laurent de Brunhoff's *Babar Comes to America*.² A map was utilized to follow Babar's trip across country.

The final exercise was a discussion of the globe and why it was a good type of map. The children mentioned that it was good because it was round, just like the earth. They enjoyed finding the United States and California.

Several concepts were left out of this unit. Perhaps it should be explained why. Nothing was done with exact size relations because of the maturity level and lack of understanding measurement. Proportions were stressed, and this the children comprehended. Legends were ignored partly because of the children's minimal reading skills and partly because they were not really necessary for the children to understand their own maps. Nor was a scale used. The children had not learned about feet or miles.

During conferences with the parents and during open house, several parents commented on how great they thought this map unit had been and how interested the children had been in it. One mother told of a weekend outing during which her son had used a map to follow the family's route. This boy had also drawn several maps at home.

The unit was an easy one to teach, and it was quite successful. It was fun for the children and they gained

understanding and exposure which will make geography easier for them to learn. They may not retain that much now, but when the subject is taught again in a higher grade, it should be easier for them for having been exposed to it this young.

REFERENCES

¹Franklin M. Branley, *North, South, East and West*, "Let's Read and Find Out Science Series" (New York: Thomas Crowell, 1966).

²Laurent de Brunhoff, *Babar Comes to America* (New York: Random House, 1965).