

# Protocol: Actor Network Mapping

Developed by the [ACESSE Project](#)

## Purpose:

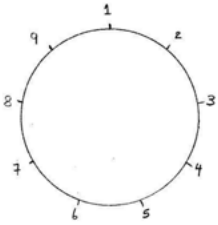
Map components of our systems that contribute to/detract from equitable science education

## Suggested materials for this activity:

- Red, green, and orange markers
- Chart paper

## To prepare for this activity:

- Write your [Aim Statement](#)
- Prepare a sheet of paper, ideally chart paper, with a circle like the one shown below. This will be the template for your Actor Network Map. If you don't have chart paper, you can print [a copy of the diagram template](#).



## Protocol:

### Step 1 - Identify influential components of your Actor Network

Write up to 9 components on the paper. Remember, a component can be a person, a specific organization, a policy, artifact, initiative, or process.

- Be sure to list yourself (or your team in your district).
- Think about the people who might not be the usual science suspects, but who play a role. These could be parent advocacy groups, suppliers and textbook companies, etc.

Next to each component, describe the particular influence that component has over efforts for equity in science education in your state.

- For people and organizations, describe what the person or organization does
- For artifacts, initiatives, and processes, describe the purpose or function of the artifact or process

Note: Since a key goal is to identify places where you can make specific changes to bring components into greater alignment, try to name specific individuals, organizations, artifacts, initiatives, processes rather than generalities.

## Step 2 - Consider Alignment of Each Component with Your Aim

In this next part, use color to designate components based on their alignment with the aim statement.

First, circle components in **red** that are not currently aligned to the vision of equitable 3D teaching and learning your team is working toward

Next, circle components in **green** that are supportive of the vision of equitable 3D teaching and learning your team is working toward

Third, circle components in **orange** that are neutral with respect to the vision

## Step 3 - Consider the Relationships Among the Components

In this step, use color to indicate relationships among components.

Draw a **green line** between any two components that are so connected or allied with one another they could not be separated from one another under any circumstances.

Draw an **orange line** between any two components that are connected and mostly allied with one another.

Draw a **red line** between any two components that have a connection but one that is weak and very changeable.

Draw no lines between components that are not connected to one another in any way.

## Step 4 - Reflect on the Process

- What kinds of people and tools are missing?
- Now that you've mapped, how can you revise your aim statement to include specific actors?
- What might be a first action step to:
  - Strengthen a green link in your network?
  - Transform an orange link into a green link?
  - Make something that feels like it cannot be changed into something that can be changed?

## Reference:

Riedy, R., Van Horne, K., Bell, P., Penuel, W. R., Neill, T., & Shaw, S. (2018). Mapping networks to help education leaders gain insights into complex educational systems. In J. Kay & R. Luckin (Eds.), *13th International Conference of the Learning Sciences* (Vol. 1, pp. 656-662). London, UK: International Society of the Learning Sciences



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