My child, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, is being asked to participate in a research project entitled Effects of an Enhanced Learning Environment on Self-Efficacy Beliefs, Science Learning Motivation, and Academic Achievement. This project is being conducted under the supervision of Tanya Dalrymple and was approved by Missouri Western State University’s Institutional Review Board. For this project, the investigator is going to gain a better understanding of how an enhanced learning environment affects self-efficacy beliefs, science learning motivation, and academic achievement in science.

**Consent Form**

As a participant in this study, my child will be asked to complete a questionnaire that asks questions about self-efficacy beliefs (beliefs in one’s competency to perform in a certain manner to attain certain goals) and motivation toward learning science. Students will take pre- and post-tests to measure knowledge of specific science concepts. Students will also participate in group interviews to discuss their experiences in the technologically enhanced, problem-based learning environment. The nature of this study has been explained to me in writing. I understand the anticipated benefits of my child participating in this study will improve the understanding of how enhanced learning environments can affect self-efficacy beliefs, attitudes toward science, and academic achievement in science.

The investigator will make every attempt to safeguard the confidentiality of the information that will be provided by my child. Any information obtained from this study that can be identified with my child will remain confidential and will not be given to anyone without my permission. If at any time I would like additional information about this project, I can contact Tanya Dalrymple at 816-671-4400.

I understand that either I or my child has the right to refuse to participate in this project. I also understand that if I do agree that my child can participate in this project, I have the right to change my mind at any time. I understand that my child’s grade will not be affected by my refusal to consent.

My signature below indicates that I have given my informed consent so that my child may complete the project described above. My signature also indicates:

* + The project has been adequately explained to me.
  + I have read this document.
  + I am legally able to provide consent for the above-named child.
  + My child has no physical or mental illness or weakness that would be adversely affected by his or her participation in this described project.

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Parent or Legal Guardian Tanya Dalrymple, Science Department Chair

Truman Middle School

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Date Date

**SMTSL Questionnaire**

**Directions:** This questionnaire contains statements about your willingness to participate in this science class. You will be asked to express your agreement on each statement. There are no “right” or “wrong” answers. Your opinion is what is wanted. Think about how well each statement describes your willingness to participate in this class.

Draw a circle around:

1. If you **strongly disagree** with the statement
2. If you **disagree** with the statement
3. If you have **no opinion** about the statement
4. If you **agree** with the statement
5. If you **strongly agree** with the statement

Be sure to give an answer for all questions. If you change your mind about an answer, just cross it out and circle another.

Some statements in this questionnaire are fairly similar to other statements. Do not worry about this. Simply give your opinion about all statements.

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| --- | --- | --- | --- | --- | --- |
| 1. **Self Efficacy** | **Strongly disagree** | **Disagree** | **No opinion** | **Agree** | **Strongly agree** |
| 1. Whether the science content is difficult or easy, I am sure that I can understand it. | 1 | 2 | 3 | 4 | 5 |
| 1. I am not confident about understanding difficult science concepts. | 1 | 2 | 3 | 4 | 5 |
| 1. I am sure that I can do well on science tests. | 1 | 2 | 3 | 4 | 5 |
| 1. No matter how much effort I put in, I cannot learn science. | 1 | 2 | 3 | 4 | 5 |
| 1. When science activities are too difficult, I give up or only do the easy parts. | 1 | 2 | 3 | 4 | 5 |
| 1. During science activities, I prefer to ask other people for the answer rather than think for myself. | 1 | 2 | 3 | 4 | 5 |
| 1. When I find the science content difficult, I do not try to learn it. | 1 | 2 | 3 | 4 | 5 |

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| 1. **Active Learning Strategies** | **Strongly disagree** | **Disagree** | **No opinion** | **Agree** | **Strongly agree** |
| 1. When learning new science concepts, I attempt to understand them. | 1 | 2 | 3 | 4 | 5 |
| 1. When learning new science concepts, I connect them to my previous experiences. | 1 | 2 | 3 | 4 | 5 |
| 1. When I do not understand a science concept, I find relevant resources that will help me. | 1 | 2 | 3 | 4 | 5 |
| 1. When I do not understand a science concept, I would discuss with the teacher or other students to clarify my understanding. | 1 | 2 | 3 | 4 | 5 |
| 1. During the learning processes, I attempt to make connections between the concepts that I learn. | 1 | 2 | 3 | 4 | 5 |
| 1. When I make a mistake, I try to find out why. | 1 | 2 | 3 | 4 | 5 |
| 1. When I meet science concepts that I do not understand, I still try to learn them. | 1 | 2 | 3 | 4 | 5 |
| 1. When new science concepts that I have learned conflict with my previous understanding, I try to understand why. | 1 | 2 | 3 | 4 | 5 |

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| 1. **Science Learning Value** | **Strongly disagree** | **Disagree** | **No opinion** | **Agree** | **Strongly agree** |
| 1. I think that learning science is important because I can use it in my daily life. | 1 | 2 | 3 | 4 | 5 |
| 1. I think that learning science is important because it stimulates my thinking. | 1 | 2 | 3 | 4 | 5 |
| 1. In science, I think that it is important to learn to solve problems. | 1 | 2 | 3 | 4 | 5 |
| 1. In science, I think it is important to participate in inquiry activities. | 1 | 2 | 3 | 4 | 5 |
| 1. It is important to have the opportunity to satisfy my own curiosity when learning science. | 1 | 2 | 3 | 4 | 5 |

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| 1. **Performance Goal** | **Strongly disagree** | **Disagree** | **No opinion** | **Agree** | **Strongly agree** |
| 1. I participate in science classes to get a good grade. | 1 | 2 | 3 | 4 | 5 |
| 1. I participate in science classes to perform better than other students. | 1 | 2 | 3 | 4 | 5 |
| 1. I participate in science classes so that other students think that I’m smart. | 1 | 2 | 3 | 4 | 5 |
| 1. I participate in science classes so that the teacher pays attention to me. | 1 | 2 | 3 | 4 | 5 |

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| 1. **Achievement Goal** | **Strongly disagree** | **Disagree** | **No opinion** | **Agree** | **Strongly agree** |
| 1. During a science class, I feel most fulfilled when I attain a good score on a test. | 1 | 2 | 3 | 4 | 5 |
| 1. I feel most fulfilled when I feel confident about the content in a science class. | 1 | 2 | 3 | 4 | 5 |
| 1. During a science class, I fell most fulfilled when I am able to solve a difficult problem. | 1 | 2 | 3 | 4 | 5 |
| 1. During a science class, I feel most fulfilled when the teacher accepts my ideas. | 1 | 2 | 3 | 4 | 5 |
| 1. During a science class, I feel most fulfilled when other students accept my ideas. | 1 | 2 | 3 | 4 | 5 |

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| 1. **Learning Environment Stimulation** | **Strongly disagree** | **Disagree** | **No opinion** | **Agree** | **Strongly agree** |
| 1. I am willing to participate in this science class because the content is exciting and changeable. | 1 | 2 | 3 | 4 | 5 |
| 1. I am willing to participate in this science class because the teacher uses a variety of teaching methods. | 1 | 2 | 3 | 4 | 5 |
| 1. I am willing to participate in this science class because the teacher does not put a lot of pressure on me. | 1 | 2 | 3 | 4 | 5 |
| 1. I am willing to participate in this science class because the teacher pays attention to me. | 1 | 2 | 3 | 4 | 5 |
| 1. I am willing to participate in this science class because it is challenging. | 1 | 2 | 3 | 4 | 5 |
| 1. I am willing to participate in this science class because the students are involved in discussions. | 1 | 2 | 3 | 4 | 5 |