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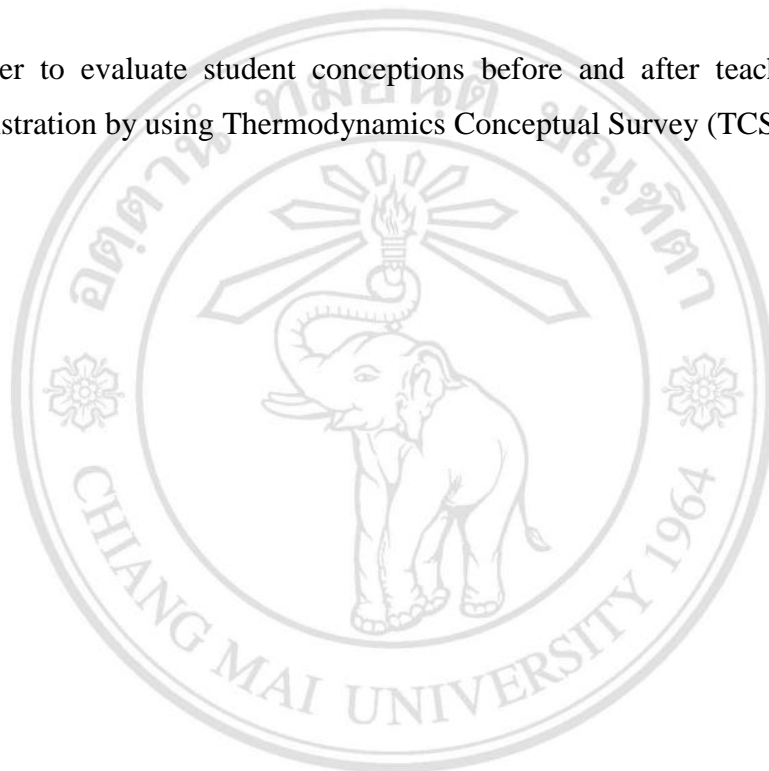
ข้อความแห่งการริเริ่ม

- 1) วิทยานิพนธ์นี้ได้นำเสนอวิธีการพัฒนาและประเมินสื่อสาริการสอนในฟิสิกส์ความร้อน ซึ่งประกอบด้วย ชุดสาริการเทอร์โมอิเล็กทริก, ชุดสาริการฟิสิกส์ความร้อนของแผ่นยาง และ ชุดสาริการเกิดหมอกในขวด
- 2) เพื่อเป็นแนวทางในการประเมินความคิดรวบยอดของนักศึกษา ก่อนและหลังการสอนด้วยชุดสาริการโดยใช้แบบสำรวจแนวคิดรวบยอดทางเทอร์โมไดนามิกส์ (Thermodynamics Conceptual Survey: TCS)

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STATEMENTS OF ORIGINALITY

1. This thesis presents the development and evaluation of teaching demonstrations in thermal physics, including thermoelectric device (TEC), thermal physics of rubber band and fog in the bottle.
2. In order to evaluate student conceptions before and after teaching with the demonstration by using Thermodynamics Conceptual Survey (TCS).



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