

User Guide for Assessing the Components of the MUSIC[®] Model of Motivation

by Brett D. Jones

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Note: This guide is updated regularly to reflect the most current research available.

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Introduction

What is included in this User Guide?

This guide contains the instructions, items, and scoring instructions for several versions of the MUSIC[®] Model of Motivation Inventory (referred to for simplicity in this guide as the *MUSIC Inventory*). In addition, this guide contains some open-ended questionnaire items and interview questions that have been used to assess perceptions of the MUSIC components. The MUSIC Inventory was developed by Dr. Brett Jones to measure constructs related to the five primary components of the MUSIC[®] Model of Motivation (Jones, 2009, 2015).

What is the MUSIC[®] Model of Motivation?

The MUSIC Model of Motivation (Jones, 2009, 2015) is a model that can be used in *any* subject area (a) to **design instruction** that motivates students, (b) to **diagnose** strengths and weakness of instruction, and (c) to **research relationships** among factors critical to student motivation. Five key principles of the model are that instructors need to ensure that students:

1. feel **empowered** by having the ability to make decisions about some aspects of their learning,
2. understand why what they are learning is **useful** for their short- or long-term goals,
3. believe that they can **succeed** if they put forth the effort required,
4. are **interested** in the content and instructional activities, and
5. believe that the instructor and others in the learning environment **care** about their learning and about them as a person (Jones, 2009, 2015; www.theMUSICmodel.com).

MUSIC is an acronym to help you remember the five key components critical to motivating and engaging students: **eMpowerment, Usefulness, Success, Interest, and Caring**.

This is only a very brief summary of the model. For more information, please read a journal article I wrote (Jones, 2009), my book (Jones, 2015), and/or the information in the *Overview* section of the MUSIC model website (www.theMUSICmodel.com).

When citing this model, please use Jones (2015) and Jones (2009), which are available here.

- Jones, B. D. (2015). *Motivating students by design: Practical strategies for professors*. Charleston, SC: CreateSpace.
 - <http://tinyurl.com/motivatingstudentsbydesign1e>
- Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC Model of Academic Motivation. *International Journal of Teaching and Learning in Higher Education*, 21(2), 272-285.
 - <http://www.isetl.org/ijtlhe/pdf/IJTLHE774.pdf>

Why is the MUSIC[®] Inventory needed?

Although researchers have used other scales to measure constructs similar to those in the MUSIC model, few of these scales have been validated through the use of rigorous empirical evidence, and others have been modified for their use. As an example, Jones (2010a) used existing instruments, but deleted some of the items, deleted or add words to items, changed the wording of the items, changed the tenses of the items, and changed the number of descriptors in the Likert-type format scales. To address these problems and others, the MUSIC Inventory was developed by Brett Jones to ensure that the items and scales for each MUSIC component would be similar in format and provide valid scores.

Information About the MUSIC[®] Inventory

What versions of the MUSIC[®] Inventory are available?

Dr. Jones developed the College Student version of the MUSIC Inventory first and then created the other versions. The MUSIC Inventory has been translated to several different languages. Most of those versions are included in this document, but others may not be because they are still under construction, please contact Brett Jones (brettdjones@gmail.com) for details.

Dr. Jones also published a Professor version of the MUSIC Inventory in the book *Motivating Students by Design* (Jones, 2015) and that inventory is included in this guide as well. This inventory can be completed by teachers to assess their perceptions of their instruction.

In addition to using the MUSIC Inventory with K-16 students, Dr. Jones has worked with faculty at Columbia University to gather evidence for a version that can be used in clinics that deliver cognitive training services. Those versions are included in this guide as well.

Note that some versions of the inventory have been examined for validity more rigorously than others, so please read the instructions in this guide related to each version for the validity evidence available at this time. Research is ongoing with all of these versions in English and in other languages.

Can I use the MUSIC[®] Inventory for my research or to evaluate my instruction?

If you publish your results in journal articles, books, presentations, websites, etc. you may use the MUSIC Inventory for non-commercial research and teaching purposes as long as you: (1) obtain the written permission of Brett Jones by emailing him (brettdjones@gmail.com), and (2) provide the reference to the MUSIC[®] Model of Motivation (Jones, 2009, 2015) and the MUSIC[®] Model of Academic Motivation Inventory (Jones, 2017, January). The [®] at the end of MUSIC[®] indicates that it is a registered trademark of Brett D. Jones, all rights reserved. Please note this in your use of the MUSIC[®] Inventory as well.

If you are using your results for your own instructional purposes, there is no need to cite anything, simply use the inventories as needed after you receive permission. It is not acceptable to use the MUSIC Inventory for commercial purposes (that is, for monetary gain on your own account or on that of a third party, or for indirect financial gain by a commercial entity). Dr. Jones has never sold any version of the MUSIC Inventory, they are all available for free because he wants to help others improve teaching at all levels.

Citations include:

- Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC Model of Academic Motivation. *International Journal of Teaching and Learning in Higher Education*, 21(2), 272-285.
- Jones, B. D. (2017, January). User guide for assessing the components of the MUSIC[®] Model of Motivation. Retrieved from <http://www.theMUSICmodel.com>

What does the MUSIC[®] Inventory measure?

The MUSIC Inventory measures the five primary components of the MUSIC Model of Motivation: empowerment, usefulness, success, interest, and caring. The components of the MUSIC model are not directly related to any one specific construct because they are names of categories of teaching strategies that can be used to motivate students. For example, the *Interest* component of the model

refers to teaching strategies that can be used to interest students. However, to measure students' perceptions of the components, it becomes necessary to either create a new construct or to align each category with an existing construct. Because the field of motivation already has many constructs, Dr. Jones chose to align each MUSIC Inventory scale with an existing motivation construct as closely as possible. The definitions for each of the MUSIC model constructs in the MUSIC Inventory and the related constructs are provided in Table 1.

Table 1. *The MUSIC Inventory Constructs and Their Definitions*

MUSIC model constructs	Definitions	Related constructs
Empowerment	The degree to which a student perceives that he or she has control of his or her learning environment in the course	Autonomy (Deci & Ryan, 1991)
Usefulness	the coursework is useful to his or her future	Utility value (Wigfield & Eccles, 2000)
Success	he or she can succeed at the coursework	Expectancy for success (Wigfield & Eccles, 2000)
Interest	the instructional methods and coursework are interesting	Situational interest (Hidi & Renninger, 2006)
Caring	the instructor cares about whether the student succeeds in the coursework and cares about the student's well-being	Caring (Noddings, 1992)

MUSIC[®] Inventory (College Student version)

Purpose

The purpose of the College Student version of the MUSIC Inventory is to measure the extent to which college students perceive the presence of each of the MUSIC model components in a college course. It can be used by professors to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

Instructions for Administering the College Student version of the MUSIC Inventory

- Title the inventory as general as possible, such as "Course Questionnaire," and delete the text above the word "Instructions" in the examples on the following pages. Titling the inventory as "motivation" or something similar could affect students' responses because of their preconceived notions of this word.
- Use the following instructions:

INSTRUCTIONS

The items that refer to a course or instructor refer to this course and your primary instructor.

Also note that the word "**coursework**" refers to anything that you did in this course, including assignments, activities, readings, etc.

There are no right or wrong answers for these questions. Please answer them honestly. Some of the questions might seem repetitive, but it is important that you answer them all to obtain the best possible results.

- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown. But if you administer the inventory online and your online survey software has the feature, I recommend that you have the software randomize the questions differently for each student.
- For the 1 to 6 rating scale, provide each number along with the associated description (e.g., 1 = *disagree*). The scale is presented correctly in this guide.
- The items are worded in the present tense if the inventory is administered at the beginning or middle of the course. The items are typically worded in the past tense when the inventory is administered near the end of a course; however, it is possible to use the present-tense version at any time in the course. Both of these versions are presented on the following pages.
- For use at the "major" or "program" level, items have been changed as shown in the third version below.
- Do not interpret any of the items for the students, they must make their own interpretation of the items. You may say something like: "Answer it based on whatever you think it means."
- The wording could be changed to focus on a particular activity within a class by changing the words "course" and "coursework" to "activity."

- Typically, responses have been collected through online survey software (e.g., Survey Monkey, Qualtrics); however, it is possible to administer the inventory on paper. Studies have not been conducted to determine how the format of the items (online versus paper) affects students' responses. Avoid displaying the numbers and labels in ways that present them as different distances apart because the distance between the items is assumed to be equal (e.g., the distance from 1 to 2 is assumed to be the same as the distance from 4 to 5). As an example, when spaced horizontally, avoid having the spacing width of the option for "1 = Strongly Disagree" larger than the width for the option for "2 = Disagree" because there are more letters in the "Strongly Disagree" label. Make the column widths for the options the same. I recommend avoiding this issue by presenting the options vertically as shown here because the distance between the rows is equal.

The instructor is respectful of me.

1 = Strongly Disagree

2 = Disagree

3 = Somewhat Disagree

4 = Somewhat Agree

5 = Agree

6 = Strongly Agree

Validity Evidence

The validity evidence for the use of this version of the MUSIC Inventory with college students is very good, if not excellent, as is shown by the results of several studies.

- Jones and Skaggs (2016) used the inventory with 338 students from 221 different face-to-face, online, and hybrid (face-to-face and online) courses and reported excellent Cronbach's alpha values of .91 for empowerment, .96 for usefulness, .93 for success, .95 for interest, and .93 for caring. Confirmatory factor analysis showed that the five-factor model fit the data well, as demonstrated by acceptable fit indices.
- Pace, Ham, Poole, and Wahaib (2016) provided validation evidence for the use of the inventory with 154 student pharmacists. They reported excellent Cronbach's alpha values of .89 for empowerment, .91 for usefulness, .92 for success, .91 for interest, and .92 for caring. They conducted an exploratory factor analysis and identified the five MUSIC components as expected.
- Tendhar, Singh, and Jones (2017) used the inventory with 812 undergraduate engineering students and obtained Cronbach's alpha values of .90 empowerment, .94 for usefulness, .89 for success, .93 for interest, and .91 for caring. Confirmatory factor analysis produced fit indices within acceptable ranges.
- Mohamed, Soliman, and Jones (2013) provided validation for an Arabic version of the MUSIC Inventory with students in Egypt.

The inventories are provided on the following pages (also note that there is a short-form version provided on the "Instructions for Scoring" page).

MUSIC Inventory (College Student version, present tense)
(to be administered near the beginning or middle of a course)

Instructions

Please rate the items in this section using the following scale:

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
---------------------------	---------------	---------------------------	------------------------	------------	---------------------

Note that the word “coursework” refers to anything that you do in the course, including assignments, activities, readings, etc.

- _____ 1. The coursework holds my attention.
- _____ 2. I have the opportunity to decide for myself how to meet the course goals.
- _____ 3. In general, the coursework is useful to me.
- _____ 4. The instructor is available to answer my questions about the coursework.
- _____ 5. The coursework is beneficial to me.
- _____ 6. The instructional methods used in this course hold my attention.
- _____ 7. I am confident that I can succeed in the coursework.
- _____ 8. I have the freedom to complete the coursework my own way.
- _____ 9. I enjoy the instructional methods used in this course.
- _____ 10. I feel that I can be successful in meeting the academic challenges in this course.
- _____ 11. The instructional methods engage me in the course.
- _____ 12. I have options in how to achieve the goals of the course.
- _____ 13. I enjoy completing the coursework.
- _____ 14. I am capable of getting a high grade in this course.
- _____ 15. The coursework is interesting to me.
- _____ 16. The instructor is willing to assist me if I need help in the course.
- _____ 17. I have control over how I learn the course content.
- _____ 18. Throughout the course, I have felt that I could be successful on the coursework.
- _____ 19. I find the coursework to be relevant to my future.
- _____ 20. The instructor cares about how well I do in this course.
- _____ 21. I will be able to use the knowledge I gain in this course.
- _____ 22. The instructor is respectful of me.
- _____ 23. The knowledge I gain in this course is important for my future.
- _____ 24. The instructor is friendly.
- _____ 25. I believe that the instructor cares about my feelings.
- _____ 26. I have flexibility in what I am allowed to do in this course.

MUSIC Inventory (College Student version, past tense)
(to be administered near the end of a course)

Instructions

Please rate the items in this section using the following scale:

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
---------------------------	---------------	---------------------------	------------------------	------------	---------------------

Note that the word “coursework” refers to anything that you did in the course, including assignments, activities, readings, etc.

- _____ 1. The coursework held my attention.
- _____ 2. I had the opportunity to decide for myself how to meet the course goals.
- _____ 3. In general, the coursework was useful to me.
- _____ 4. The instructor was available to answer my questions about the coursework.
- _____ 5. The coursework was beneficial to me.
- _____ 6. The instructional methods used in this course held my attention.
- _____ 7. I was confident that I could succeed in the coursework.
- _____ 8. I had the freedom to complete the coursework my own way.
- _____ 9. I enjoyed the instructional methods used in this course.
- _____ 10. I felt that I could be successful in meeting the academic challenges in this course.
- _____ 11. The instructional methods engaged me in the course.
- _____ 12. I had options in how to achieve the goals of the course.
- _____ 13. I enjoyed completing the coursework.
- _____ 14. I was capable of getting a high grade in this course.
- _____ 15. The coursework was interesting to me.
- _____ 16. The instructor was willing to assist me if I needed help in the course.
- _____ 17. I had control over how I learned the course content.
- _____ 18. Throughout the course, I felt that I could be successful on the coursework.
- _____ 19. I found the coursework to be relevant to my future.
- _____ 20. The instructor cared about how well I did in this course.
- _____ 21. I will be able to use the knowledge I gained in this course.
- _____ 22. The instructor was respectful of me.
- _____ 23. The knowledge I gained in this course is important for my future.
- _____ 24. The instructor was friendly.
- _____ 25. I believe that the instructor cared about my feelings.
- _____ 26. I had flexibility in what I was allowed to do in this course.

MUSIC Inventory (College Student version, present tense, major/program level)
 (to be administered while the student is enrolled in college)

Instructions

Please rate the items in this section using the following scale:

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
---------------------------	---------------	---------------------------	------------------------	------------	---------------------

Thinking about the [insert name of major or program] courses you have taken and are currently taking in your academic major (i.e., [insert specific majors]), please rate your level of agreement or disagreement with the following statements:

- _____ 1. The coursework holds my attention.
- _____ 2. I have the opportunity to decide for myself how to meet course goals.
- _____ 3. In general, the coursework is useful to me.
- _____ 4. The instructors are available to answer my questions about the coursework.
- _____ 5. The coursework is beneficial to me.
- _____ 6. The instructional methods used in the courses hold my attention.
- _____ 7. I am confident that I can succeed in the coursework.
- _____ 8. I have the freedom to complete the coursework my own way.
- _____ 9. I enjoy the instructional methods used in the courses.
- _____ 10. I feel that I can be successful in meeting the academic challenges in the courses.
- _____ 11. The instructional methods engage me in the courses.
- _____ 12. I have options in how to achieve the goals of the courses.
- _____ 13. I enjoy completing the coursework.
- _____ 14. I am capable of getting a high grade in the courses.
- _____ 15. The coursework is interesting to me.
- _____ 16. The instructors are willing to assist me if I need help in a course.
- _____ 17. I have control over how I learn the course content.
- _____ 18. Throughout the courses, I have felt that I could be successful on the coursework.
- _____ 19. I find the coursework to be relevant to my future.
- _____ 20. The instructors care about how well I do in their courses.
- _____ 21. I will be able to use the knowledge I gain in the courses.
- _____ 22. The instructors are respectful of me.
- _____ 23. The knowledge I gain in the courses is important for my future.
- _____ 24. The instructors are friendly.
- _____ 25. I believe that the instructors care about my feelings.
- _____ 26. I have flexibility in what I am allowed to do in the courses.

Instructions for Scoring the MUSIC Inventory (College Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

Empowerment score = (item 2 + item 8 + item 12 + item 17 + item 26) / 5

Usefulness score = (item 3 + item 5 + item 19 + item 21 + item 23) / 5

Success score = (item 7 + item 10 + item 14 + item 18) / 4

Interest score = (item 1 + item 6 + item 9 + item 11 + item 13 + item 15) / 6

Caring score = (item 4 + item 16 + item 20 + item 22 + item 24 + item 25) / 6

Other important notes:

- Do not sum or average all 26 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.

Scales	Items by Scale (past-tense college version)
Empowerment	<ul style="list-style-type: none"> • I had the opportunity to decide for myself how to meet the course goals. • ** I had the freedom to complete the coursework my own way. • ** I had options in how to achieve the goals of the course. • ** I had control over how I learned the course content. • ** I had flexibility in what I was allowed to do in this course.
Usefulness	<ul style="list-style-type: none"> • ** In general, the coursework was useful to me. • ** The coursework was beneficial to me. • ** I found the coursework to be relevant to my future. • I will be able to use the knowledge I gained in this course. • ** The knowledge I gained in this course is important for my future.
Success	<ul style="list-style-type: none"> • ** I was confident that I could succeed in the coursework. • ** I felt that I could be successful in meeting the academic challenges in this course. • ** I was capable of getting a high grade in this course. • ** Throughout the course, I felt that I could be successful on the coursework.
Interest	<ul style="list-style-type: none"> • The coursework held my attention. • ** The instructional methods used in this course held my attention. • ** I enjoyed the instructional methods used in this course. • The instructional methods engaged me in the course. • ** I enjoyed completing the coursework. • ** The coursework was interesting to me.
Caring	<ul style="list-style-type: none"> • The instructor was available to answer my questions about the coursework. • ** The instructor was willing to assist me if I needed help in the course. • ** The instructor cared about how well I did in this course. • ** The instructor was respectful of me. • ** The instructor was friendly. • I believe that the instructor cared about my feelings.

** Items with the double asterisk (**) are part of the short-form version. Pilot testing indicates that they produce valid scores and further evaluation is ongoing.

MUSIC[®] Inventory (Professor version)

Purpose

The purpose of the Professor version of the MUSIC Inventory is to measure the extent to which professors believe that students perceive the presence of each of the MUSIC model components in a college course. The Professor version of the MUSIC Inventory is different from the College Student version of the inventory because it is administered to the professor instead of the students (professors can administer it to themselves). I use the term “Professor” for this version as a broad term to include professors, teachers, lecturers, instructors, and anyone who designs and implements instruction for learners.

The Professor version can be used to identify areas of strengths and weaknesses related to factors that affect students’ motivation and engagement. It is intended to be used as a reflection tool along with other sources of data, such as the College Student version of the MUSIC Inventory. The items are almost identical to the College Student version except I changed the wording to make them appropriate for a professor to answer.

Instructions for Administering the Professor version of the MUSIC Inventory

These instructions are for situations in which someone is administering the inventory to one or more professors. Professors can also administer the inventory to themselves for their own courses.

- Title the inventory as general as possible, such as “Course Questionnaire,” and delete the text above the word “Instructions” in the examples on the following pages. Titling the inventory as “motivation” or something similar could affect professors’ responses because of their preconceived notions of this word.
- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown.
- For the 1 to 6 rating scale, provide each number along with the associated description (e.g., 1 = *disagree*). The scale is presented correctly in this guide.
- The items are worded in the present tense if the inventory is administered at the beginning or middle of the course. The items are worded in the past tense when the inventory is administered near the end of a course. Both of these versions are presented on the following pages.
- Do not interpret any of the items for the professors, they must make their own interpretation of the items. You may say something like: “Answer it based on whatever you think it means.”
- The wording could be changed to focus on a particular activity within a class by changing the words “course” and “coursework” to “activity.”
- Responses can be collected through online survey software (e.g., Survey Monkey, Qualtrics) or on a paper version of the inventory.

Validity Evidence

The Professor version of the MUSIC Inventory is intended to be used as a reflection tool by the professor and has not yet been validated for research purposes (although research is in process).

The inventories are provided on the following pages (also note that there is a short-form version provided after the “Instructions for Scoring” page).

MUSIC Inventory (Professor version, present tense)
(to be administered near the beginning or middle of a course)

Instructions

List a course for which you want to assess students' motivation: _____

Respond to the items below in relation to this one course using this scale:

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

Note that the word "coursework" refers to anything that students do in the course, including assignments, activities, readings, etc.

Students believe that:

- _____ 1. the coursework holds their attention.
- _____ 2. they have the opportunity to decide for themselves how to meet the course goals.
- _____ 3. in general, the coursework is useful to them.
- _____ 4. I am available to answer their questions about the coursework.
- _____ 5. the coursework is beneficial to them.
- _____ 6. the instructional methods used in this course hold their attention.
- _____ 7. they are confident that they can succeed in the coursework.
- _____ 8. they have the freedom to complete the coursework their own way.
- _____ 9. they enjoy the instructional methods used in this course.
- _____ 10. they can be successful in meeting the academic challenges in this course.
- _____ 11. the instructional methods engage them in the course.
- _____ 12. they have options in how to achieve the goals of the course.
- _____ 13. they enjoy completing the coursework.
- _____ 14. they are capable of getting a high grade in this course.
- _____ 15. the coursework is interesting.
- _____ 16. I am willing to assist them if they need help in the course.
- _____ 17. they have control over how they learn the course content.
- _____ 18. throughout the course, they could be successful on the coursework.
- _____ 19. the coursework is relevant to their future.
- _____ 20. I care about how well they do in this course.
- _____ 21. they will be able to use the knowledge they gain in this course.
- _____ 22. I am respectful of them.
- _____ 23. the knowledge they gain in this course is important for their future.
- _____ 24. I am friendly.
- _____ 25. I care about their feelings.
- _____ 26. they have flexibility in what they are allowed to do in this course.

MUSIC Inventory (Professor version, past tense)
(to be administered near the end of a course)

Instructions

List a course for which you want to assess students' motivation: _____

Respond to the items below in relation to this one course using this scale:

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

Note that the word "coursework" refers to anything that students do in the course, including assignments, activities, readings, etc.

Students believed that:

- _____ 1. the coursework held their attention.
- _____ 2. they had the opportunity to decide for themselves how to meet the course goals.
- _____ 3. in general, the coursework was useful to them.
- _____ 4. I was available to answer their questions about the coursework.
- _____ 5. the coursework was beneficial to them.
- _____ 6. the instructional methods used in this course held their attention.
- _____ 7. they were confident that they could succeed in the coursework.
- _____ 8. they had the freedom to complete the coursework their own way.
- _____ 9. they enjoyed the instructional methods used in this course.
- _____ 10. they could be successful in meeting the academic challenges in this course.
- _____ 11. the instructional methods engaged them in the course.
- _____ 12. they had options in how to achieve the goals of the course.
- _____ 13. they enjoyed completing the coursework.
- _____ 14. they were capable of getting a high grade in this course.
- _____ 15. the coursework was interesting.
- _____ 16. I was willing to assist them if they needed help in the course.
- _____ 17. they had control over how they learned the course content.
- _____ 18. throughout the course, they could be successful on the coursework.
- _____ 19. the coursework was relevant to their future.
- _____ 20. I cared about how well they did in this course.
- _____ 21. they would be able to use the knowledge they gained in this course.
- _____ 22. I was respectful of them.
- _____ 23. the knowledge they gained in this course was important for their future.
- _____ 24. I was friendly.
- _____ 25. I cared about their feelings.
- _____ 26. they had flexibility in what they were allowed to do in this course.

Instructions for Scoring the MUSIC Inventory (Professor version)

To obtain a score for each of the five scales, place the item numbers from the prior page onto the corresponding line below. Then, average the values for the items in each scale by adding the numbers and dividing by the total number of items in the scale as shown below.

(item 2 + item 8 + item 12 + item 17 + item 26) / 5

(_____ + _____ + _____ + _____ + _____) / 5 = _____ = **eMpowerment**

(item 3 + item 5 + item 19 + item 21 + item 23) / 5

(_____ + _____ + _____ + _____ + _____) / 5 = _____ = **Usefulness**

(item 7 + item 10 + item 14 + item 18) / 4

(_____ + _____ + _____ + _____) / 4 = _____ = **Success**

(item 1 + item 6 + item 9 + item 11 + item 13 + item 15) / 6

(_____ + _____ + _____ + _____ + _____ + _____) / 6 = _____ = **Interest**

(item 4 + item 16 + item 20 + item 22 + item 24 + item 25) / 6

(_____ + _____ + _____ + _____ + _____ + _____) / 6 = _____ = **Caring**

NOTE: Do not sum or average all 26 items because this produces a meaningless value. It's inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when only one or two of her MUSIC perceptions are high and the others are low.

Look at your scores for each MUSIC component. Higher numbers indicate that your instruction is more consistent with the strategies related to those MUSIC components. Lower numbers indicate that you may be able to implement more strategies consistent with those MUSIC components. These results cannot be interpreted precisely. Instead, they're intended to help you diagnose areas of possible strengths and weaknesses. So obviously, also use your beliefs about your instructional strengths and weaknesses related to students' MUSIC perceptions. To corroborate your beliefs, you can assess students' perceptions by asking students to complete the student version of the MUSIC Inventory available at www.theMUSICmodel.com.

A short-form Professor version is also available as shown in the table on the next page.

MUSIC Inventory (short-form Professor version, present tense)

The instructions for this version and the directions for administering it are the same as the other Professor versions, including that the items should be ordered randomly.

Scales	Items by Scale (present-tense Professor version)
Empowerment	Students believe that: <ul style="list-style-type: none">• they have the freedom to complete the coursework their own way.• they have options in how to achieve the goals of the course.• they have control over how they learn the course content.• they have flexibility in what they are allowed to do in this course.
Usefulness	<ul style="list-style-type: none">• in general, the coursework is useful to them.• the coursework is beneficial to them.• the coursework is relevant to their future.• the knowledge they gain in this course is important for their future.
Success	<ul style="list-style-type: none">• they are confident that they can succeed in the coursework.• they can be successful in meeting the academic challenges in this course.• they are capable of getting a high grade in this course.• throughout the course, they could be successful on the coursework.
Interest	<ul style="list-style-type: none">• the instructional methods used in this course hold their attention.• they enjoy the instructional methods used in this course.• they enjoy completing the coursework.• the coursework is interesting.
Caring	<ul style="list-style-type: none">• I am willing to assist them if they need help in the course.• I care about how well they do in this course.• I am respectful of them.• I am friendly.

MUSIC® Inventory (Middle/High School Student version)

Purpose

The purpose of the Middle/High School Student version of the MUSIC Inventory is to measure the extent to which middle or high school students perceive the presence of each of the MUSIC model components in a class or other learning environment. It can be used by teachers to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

I developed this version of the MUSIC Inventory by selecting items from the College Student version of the MUSIC Inventory that were most appropriate for middle and high school students. I made a few slight modifications to some of the items to make them more appropriate for this population, but they are very similar to the items in the College Student version.

Instructions for Administering the Middle/High School version of the MUSIC Inventory

- Substitute the word “science” with the subject area of the class to be surveyed.
- Title the inventory as general as possible, such as “Questions About Science Class,” and delete the text above the word “Directions” in the examples on the following pages. Titling the inventory as “motivation” or something similar could affect students' responses because of their preconceived notions of this word.
- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown.
- For the 1 to 6 rating scale, provide each number along with the associated description (e.g., 1 = *disagree*). The scale is presented correctly in this guide.
- Do not interpret any of the items for the students, they must make their own interpretation of the items. You may say something like: “Answer it based on whatever you think it means.”
- The items are worded in the present tense if the inventory is administered at the beginning or middle of the course. The items are worded in the past tense when the inventory is administered near the end of a course. Both of these versions are presented on the following pages.
- Typically, responses have been collected on paper; however, it is possible to administer the inventory online.

Hand out the directions on the following page (between the dashed lines) on one sheet of paper. You may have to modify the directions based on your circumstance. Read the directions aloud to the students then ask them to answer the “I like to eat pizza” item to ensure that they understand how to use the 6-point scale. After a few seconds, read the text below the pizza item and ask them if they have any questions. Next, collect these directions and hand out one of the versions of the MUSIC Inventory on the pages that follow. I do not hand out these two sheets at the same time because I do not want any students to start the inventory before I finish reading the directions.

Validity Evidence

Several studies have provided validity evidence for the use of this version of the MUSIC Inventory.

- Jones, Sahbaz, Schram, and Chittum (2017) and Chittum and Jones (2017) have provided validity evidence for the middle/high school version to be used with fifth-grade to seventh-grade students in science classes. In the Jones, Sahbaz, et al. (2017) study, Cronbach's

alpha values were good (eMpowerment $\alpha = .72$; Usefulness $\alpha = .80$; Success $\alpha = .84$; Interest $\alpha = .77$; Caring $\alpha = .85$) and the fit indices produced from a one-factor measurement model were acceptable. In the Chittum and Jones (2017) study, Cronbach's alpha values were good and ranged from .72 to .85 for the five MUSIC Inventory scales over three samples; the fit indices produced from three different confirmatory factor analyses were acceptable.

- Parkes, Jones, and Wilkins (2017) have provided validity evidence for this version to be used with fifth-grade to twelfth-grade students in music and band ensemble classes. Cronbach's alpha values ranged from good to excellent (eMpowerment $\alpha = .73$; Usefulness $\alpha = .86$; Success $\alpha = .92$; Interest $\alpha = .91$; Caring $\alpha = .92$) and the fit indices produced from a confirmatory factor analysis were acceptable.
- The middle/high school version of the MUSIC Inventory was also translated to Icelandic and Schram and Jones (2016) provided validity evidence for its use with Icelandic middle school students in science classes. Chronbach's alpha values were as follows: empowerment $\alpha = .68$; usefulness $\alpha = .87$; success; $\alpha = .83$; interest $\alpha = .86$; and caring $\alpha = .88$. They also conducted a confirmatory factor analysis and found that the data fit the model well.

The inventories are provided on the following pages.

Directions

This is not a test and there are no right or wrong answers. We are only interested in your **honest opinion**. Your responses will remain confidential. This means that no one at your school will know how you answered these questions because your names will be removed from the questionnaire and your answers will be summarized with the answers of the other students in your school.

Some of the questions will seem similar to one another; however, it is important that you answer all of them to ensure that we completely understand your answers.

The questions ask you to select a number for your answer. Please select the number that best describes what **you believe**.

Example Question 1

Please select one of the numbers from 1 to 6 below and write it in the space next to the question.

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
------------------------	---------------	------------------------	---------------------	------------	---------------------

_____ 1. I like to eat pizza.

For this question, you would select a “6” if you like to eat pizza a lot, you would select a “1” if you do not like pizza at all, or any number in between depending on how much you like pizza. What number would you choose if you liked pizza a little? Maybe a 2, or 3, or 4. You can pick any number depending on how much you like pizza. You should answer the questions on the real survey using this same scale.

MUSIC Inventory (Middle/High School Student version, present tense)
(to be administered near the beginning or middle of a class)

The inventories are provided on the following pages.

Questions About Science Class

Directions

These items ask you about your current **SCIENCE CLASS** and **SCIENCE TEACHER**.

Please select one of the numbers from 1 to 6 below and write it in the space next to each question.

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
---------------------------	---------------	---------------------------	------------------------	------------	---------------------

- _____ 1. The knowledge I gain in science class is important for my future.
- _____ 2. I am confident that I can succeed in science class work.
- _____ 3. My science teacher cares about how well I do in science class.
- _____ 4. I am capable of getting a high grade in science class.
- _____ 5. I have the freedom to complete my science class work in my own way.
- _____ 6. The science class work is interesting to me.
- _____ 7. I feel that I can be successful in meeting the academic challenges in science class.
- _____ 8. I enjoy completing science class work.
- _____ 9. In general, science class work is useful to me.
- _____ 10. During science class, I feel that I can be successful on the class work.
- _____ 11. My science teacher is friendly.
- _____ 12. I have choices in what I am allowed to do in science class.
- _____ 13. I find science class work to be relevant to my future.
- _____ 14. My science teacher is willing to assist me if I need help in science class.
- _____ 15. My science teacher is respectful of me.
- _____ 16. I have control over how I learn the content in science class.
- _____ 17. The science class work holds my attention.
- _____ 18. I have options in how to achieve the goals in science class.

MUSIC Inventory (Middle/High School Student version, past tense)
(to be administered near the end of a class)

Directions

These items ask you about your current SCIENCE CLASS and SCIENCE TEACHER.

Please select one of the numbers from 1 to 6 below and write it in the space next to each question.

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
---------------------------	---------------	---------------------------	------------------------	------------	---------------------

- _____ 1. The knowledge I gained in science class is important for my future.
- _____ 2. I was confident that I could succeed in science class work.
- _____ 3. My science teacher cared about how well I did in science class.
- _____ 4. I was capable of getting a high grade in science class.
- _____ 5. I had the freedom to complete my science class work in my own way.
- _____ 6. The science class work was interesting to me.
- _____ 7. I felt that I could be successful in meeting the academic challenges in science class.
- _____ 8. I enjoyed completing science class work.
- _____ 9. In general, science class work was useful to me.
- _____ 10. During science class, I felt that I could be successful on the class work.
- _____ 11. My science teacher was friendly.
- _____ 12. I had choices in what I was allowed to do in science class.
- _____ 13. I found science class work to be relevant to my future.
- _____ 14. My science teacher was willing to assist me if I needed help in science class.
- _____ 15. My science teacher was respectful of me.
- _____ 16. I had control over how I learned the content in science class.
- _____ 17. The science class work held my attention.
- _____ 18. I had options in how to achieve the goals in science class.

MUSIC Inventory (Middle/High School Student version, past tense)
(to be administered near the end of an activity or lesson)

Directions

These items ask you about the science activity you just finished and the teacher of the activity.

Please select one of the numbers from 1 to 6 below and write it in the space next to each question.

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
------------------------	---------------	------------------------	---------------------	------------	---------------------

- _____ 1. The knowledge I gained in the activity is important for my future.
- _____ 2. I was confident that I could succeed in the activity.
- _____ 3. My teacher cared about how well I did in the activity.
- _____ 4. I was capable of getting a high grade in the activity.
- _____ 5. I had the freedom to complete the activity in my own way.
- _____ 6. The activity was interesting to me.
- _____ 7. I felt that I could be successful in meeting the challenges in the activity.
- _____ 8. I enjoyed completing the activity.
- _____ 9. In general, the activity was useful to me.
- _____ 10. During the activity, I felt that I could be successful.
- _____ 11. My teacher was friendly.
- _____ 12. I had choices in what I was allowed to do in the activity.
- _____ 13. I found the activity to be relevant to my future.
- _____ 14. My teacher was willing to assist me if I needed help in the activity.
- _____ 15. My teacher was respectful of me.
- _____ 16. I had control over how I learned the content in the activity.
- _____ 17. The activity held my attention.
- _____ 18. I had options in how to achieve the goals in the activity.

Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

Empowerment score = (item 5 + item 12 + item 16 + item 18) / 4

Usefulness score = (item 1 + item 9 + item 13) / 3

Success score = (item 2 + item 4 + item 7 + item 10) / 4

Interest score = (item 6 + item 8 + item 17) / 3

Caring score = (item 3 + item 11 + item 14 + item 15) / 4

Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.

Scales	Items by Scale
Empowerment (4 items)	<ul style="list-style-type: none">• I have the freedom to complete my science class work in my own way.• I have choices in what I am allowed to do in science class.• I have control over how I learn the content in science class.• I have options in how to achieve the goals in science class.
Usefulness (3 items)	<ul style="list-style-type: none">• The knowledge I gain in science class is important for my future.• In general, science class work is useful to me.• I find science class work to be relevant to my future.
Success (4 items)	<ul style="list-style-type: none">• I am confident that I can succeed in science class work.• I am capable of getting a high grade in science class.• I feel that I can be successful in meeting the academic challenges in science class.• During science class, I feel that I can be successful on the class work.
Interest (3 items)	<ul style="list-style-type: none">• The science class work is interesting to me.• I enjoy completing science class work.• The science class work holds my attention.
Caring (4 items)	<ul style="list-style-type: none">• My science teacher cares about how well I do in science class.• My science teacher is friendly.• My science teacher is willing to assist me if I need help in science class.• My science teacher is respectful of me.

MUSIC[®] Inventory (Elementary School Student version)

Purpose

The purpose of the Elementary School Student version of the MUSIC Inventory is to measure the extent to which elementary school students perceive the presence of each of the MUSIC model components in an activity or assignment that they just completed that day. It can be used by teachers to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

Miranda Sigmon and I developed this version of the MUSIC Inventory by writing new items and adapting items from the College Student and Middle/High School version of the MUSIC Inventory.

Instructions for Administering the Elementary School version of the MUSIC Inventory

- The items are worded in the past tense and ask about a specific assignment or activity.
- The inventory can be used after any assignment or activity in any subject area.
- Title the inventory as general as possible, such as "Questions About Class," and delete the text above the word "Directions" in the example on the following page. Titling the inventory as "motivation" or something similar could affect students' responses because of their preconceived notions of this word.
- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown.
- For the 1 to 4 rating scale, provide each number along with the associated description (e.g., 1 = *no*). The scale is presented correctly in this guide.
- Do not interpret any of the items for the students, they must make their own interpretation of the items. You may say something like: "Answer it based on whatever you think it means."
- Typically, responses have been collected on paper; however, it is possible to administer the inventory online.

Copy the directions on the next page (between the dashed lines) on one-half sheet of paper. Hand it out to students and read the directions aloud. Then read the questions below it to ensure that they understand how to answer the questions.

Next, collect these directions and hand out the elementary school version of the MUSIC Inventory that is on the following page. Do not hand out these two pieces of paper at the same time because students may start completing the inventory before they understand the directions.

For first and second grade students:

- Read the directions and then read each item one at a time allowing time between for the students to write down their answer. Read each of the 15 items aloud to the students. You may read the items, but do not interpret them for students or make-up your own wording.

For third, fourth, and fifth grade students:

- Read the directions aloud and then allow the students to read the items and select answers on their own.

Validity Evidence

Jones and Sigmon (2016) provided validity evidence for the use of the elementary school version of the MUSIC Inventory with students in first to fifth grades. We surveyed 535 students and reported Cronbach's alpha values of .72 for empowerment, .71 for usefulness, .65 for success, .76 for interest, and .64 for caring. Results of confirmatory factor analysis produced fit indices within acceptable ranges.

The inventory is provided on the following pages.

Directions

This is not a test and there are no right or wrong answers. We are only interested in your **honest opinion**. The questions ask you to pick a number about how you feel.

Example Question 1

Please pick one of the numbers from 1 to 4 below and write it in the space next to the question.

1	2	3	4
No	Maybe	Yes	Definitely, Yes!

_____ 1. I like to eat pizza.

Read the following to students:

What number would you pick if you liked pizza a lot? Yes, a “4.” What number would you pick if you did not like pizza at all? Yes, a “1”. How about if you liked it a little? You could pick a “2” or a “3” depending on how much you liked it. Any questions about how to pick numbers about how you feel about the question?

MUSIC Inventory (Elementary School Student version, past tense)

(to be administered near the end of an activity or assignment)

Directions

Date: _____

These questions ask you about what you worked on today in this class (the teacher will tell you what it was). Please think about only this as you answer these questions. There are no right or wrong answers to these questions. Please pick one of the numbers from 1 to 4 below and write it in the blank next to the question.

1 No	2 Maybe	3 Yes	4 Definitely, Yes!
---------	------------	----------	-----------------------

- _____ 1. I was able to do a good job.
- _____ 2. I liked what I did.
- _____ 3. What I learned could help me in school.
- _____ 4. I knew I could do well.
- _____ 5. I could do it my way.
- _____ 6. My teacher was helpful.
- _____ 7. It was useful to me.
- _____ 8. What I did was interesting.
- _____ 9. My teacher cared about how well I did.
- _____ 10. It was easy to do.
- _____ 11. I made decisions.
- _____ 12. What I did was fun.
- _____ 13. I can use what I learned.
- _____ 14. My teacher likes me.
- _____ 15. I had choices.

Instructions for Scoring the MUSIC Inventory (Elementary School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

Empowerment score = (item 5 + item 11 + item 15) / 3

Usefulness score = (item 3 + item 7 + item 13) / 3

Success score = (item 1 + item 4 + item 10) / 3

Interest score = (item 2 + item 8 + item 12) / 3

Caring score = (item 6 + item 9 + item 14) / 3

Other important notes:

- Do not sum or average all 15 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.

Scales	Items by Scale
Empowerment (3 items)	<ul style="list-style-type: none">• I could do it my way.• I made decisions.• I had choices.
Usefulness (3 items)	<ul style="list-style-type: none">• What I learned could help me in school.• It was useful to me.• I can use what I learned.
Success (3 items)	<ul style="list-style-type: none">• I was able to do a good job.• I knew I could do well.• It was easy to do.
Interest (3 items)	<ul style="list-style-type: none">• I liked what I did.• What I did was interesting.• What I did was fun.
Caring (3 items)	<ul style="list-style-type: none">• My teacher was helpful.• My teacher cared about how well I did.• My teacher likes me.

MUSIC® Inventory (Chinese translation of the College Student version)

Purpose

The purpose of the Chinese translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Chinese. The initial translator for this version was Ming Li at Sias International University in China. The inventory is provided on the following page; and on the page after, there is a version that was modified slightly by Yufang Chu (朱玉仿) for use in Taiwan.

Instructions for Administering This Version

Please closely follow the instruction in the “Instructions for Administering the College Student version of the MUSIC Inventory” section of this document.

Instructions for Scoring This Version

Please closely follow the scoring guidelines in the “Instructions for Scoring the MUSIC Inventory (College Student version)” section of this document.

Validity Evidence

The validity evidence for the use of the Chinese translation of this version of the MUSIC Inventory with college students is very good. In a sample of 300 undergraduate students, Jones, Li, and Cruz (2017) reported Cronbach’s alpha values of .82 for empowerment, .89 for usefulness, .87 for success, .93 for interest, and .88 for caring. Confirmatory factor analysis showed that the five-factor model fit the data well, as demonstrated by acceptable fit indices.

The inventories are provided on the following pages.

你对本调查问卷中问题的回答，答案没有对错之分。我们感兴趣的是你的观点。请诚实回答本问卷的问题。你的答案将会保密，它们不会被你的任课老师看到，或者是被用来作为本课程期末成绩评判的一部分。

所有的问题中所提到的“课程”或是“任课教师”指本学期的《大学英语》这门课及大学英语任课老师。

请用以下量表来回答本部分问卷问题。

1 强烈不同意	2 不同意	3 有点儿不同意	4 有点儿同意	5 同意	6 强烈同意
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请注意：这里“这门课”一词，指该门课程中你所做的任何事情，包括作业，活动，阅读资料等等。

- _____ 1. 这门课抓住我的注意力。
- _____ 2. 我自己有机会去决定如何达到课程目标。
- _____ 3. 总体来说，这门课对我是有用的。
- _____ 4. 任课老师能够回答我的有关这门课的问题。
- _____ 5. 我从这门课中受益。
- _____ 6. 这门课的教学方法能吸引我的注意力。
- _____ 7. 我有信心在这门课中取得成功。
- _____ 8. 我有自由以自己的方式去完成课程作业。
- _____ 9. 我很喜爱这门课程中的教学方法。
- _____ 10. 我感觉我能够成功地达到这门课的学业目标。
- _____ 11. 这门课的教学方法让我积极参与其中。
- _____ 12. 我有选择权如何达到该课程目标。
- _____ 13. 我很开心去完成该课程各项作业。
- _____ 14. 我有能力在这门课程中获得高分。
- _____ 15. 这门课对我来讲很有趣。
- _____ 16. 在我需要的时候，这门课的老师很乐意帮助我。
- _____ 17. 我能掌控如何学习本课程的内容。
- _____ 18. 总观整个课程，我已经觉得我能在这门课中取得成功。
- _____ 19. 我发现这门课和我的未来密切相关。
- _____ 20. 老师关注我在这门课程中的学习状况。
- _____ 21. 我将来能够运用我在这门课中所学到的知识。
- _____ 22. 任课老师尊重我。
- _____ 23. 这门课学到的知识对我的未来很重要。
- _____ 24. 任课老师很友好。
- _____ 25. 我相信任课老师关注我的感受。
- _____ 26. 我有灵活性来完成这门课所允许我做的事情。

MUSIC學業動機問卷大學學生繁體中文版

你對本調查問卷中問題的回答，答案沒有對錯之分。我們感興趣的是你的觀點。請誠實回答本問卷的問題。你的答案將會保密，它們不會被用來作為本課程期末成績評判的一部分。所有問題中所提到的“課程”或是“任課教師”是指本學期《創意思考》這門課及創意思考任課老師。

請用以下量表來回答問卷問題。

1	2	3	4	5	6
非常不同意	不同意	有點不同意	有點同意	同意	非常同意

請注意：這裡“這門課”一詞，指該門課程中你所做的任何事情，包括作業、活動、閱讀資料等等。

- _____ 1. 這門課抓住我的注意力。
- _____ 2. 我自己有機會去決定如何達到課程目標。
- _____ 3. 總體來說，這門課對我是有用的。
- _____ 4. 任課老師能夠回答我有關這門課的問題。
- _____ 5. 我從這門課中受益。
- _____ 6. 這門課的教學方法能吸引我的注意力。
- _____ 7. 我有信心在這門課中取得成功。
- _____ 8. 我有自由以自己的方式去完成課程作業。
- _____ 9. 我很喜愛這門課程中的教學方法。
- _____ 10. 我感覺我能夠成功地達到這門課的學業目標。
- _____ 11. 這門課的教學方法讓我積極參與其中。
- _____ 12. 我有選擇權如何達到該課程目標。
- _____ 13. 我很開心去完成該課程各項作業。
- _____ 14. 我有能力在這門課程中獲得高分。
- _____ 15. 這門課對我來講很有趣。
- _____ 16. 在我需要的時候，這門課的老師很樂意幫助我。
- _____ 17. 我能掌控如何學習本課程的內容。
- _____ 18. 總觀整個課程，我已經覺得我能在這門課中取得成功。
- _____ 19. 我發現這門課和我的未來密切相關。
- _____ 20. 老師關注我在這門課程中的學習狀況。
- _____ 21. 我將來能夠運用我在這門課中所學到的知識。
- _____ 22. 任課老師尊重我。
- _____ 23. 這門課學到的知識對我的未來很重要。
- _____ 24. 任課老師很友好。
- _____ 25. 我相信任課老師關注我的感受。
- _____ 26. 我有彈性自主的來完成這門課允許我做的事情。

MUSIC® Inventory (Farsi translation of the College Student version)

Purpose

The purpose of the Farsi translation of the College Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Farsi. The initial translators for this version were Farzaneh Mikaeli Manee and Elham Salehi at Urmia University in Iran. The translation was back-translated to English by Shabnam Kavousi and checked by Brett Jones, which resulted in a minor edit to one of the items. The English items on the following pages are not the back-translations; rather, they are the original English items.

Instructions for Administering This Version

Please closely follow the instruction in the “Instructions for Administering the College Student version of the MUSIC Inventory” section of this document.

Instructions for Scoring This Version

Please closely follow the scoring guidelines in the “Instructions for Scoring the MUSIC Inventory (College Student version)” section of this document.

Validity Evidence

Farzaneh Mikaeli Manee at Urmia University in Iran has conducted a study with this version and the preliminary evidence suggests that the translation is acceptable. Research is ongoing and will be published soon.

The inventory is provided on the following pages.

* در هر دو پرسشنامه پاسخ دهندگان باید یکی از شماره های 1 تا 6 را انتخاب و در کنار جای خالی بنویسند.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
کاملاً مخالفم	مخالفم	تا حدودی مخالفم	تا حدودی موافقم	موافقم	کاملاً موافقم

متن انگلیسی پرسشنامه برای یک دوره	ترجمه و ویرایش شده:
_____ 1. The coursework held my attention.	_____ 1. ترم توجه من را جلب کرد.
_____ 2. I had the opportunity to decide for myself how to meet the course goals.	_____ 2. من فرصت این را داشتم که در مورد چگونگی رسیدن به اهداف دوره (تحصیلی) تصمیم بگیرم.
_____ 3. In general, the coursework was useful to me.	_____ 3. به طور کلی، ترم برای من مفید بود.
_____ 4. The instructor was available to answer my questions about the coursework.	_____ 4. مربی برای پاسخگویی به سوالات من در مورد ترم حضور داشت (در دسترس بود).
_____ 5. The coursework was beneficial to me.	_____ 5. ترم برای من سودمند بود.
_____ 6. The instructional methods used in this course held my attention.	_____ 6. روش آموزشی مورد استفاده در این دوره توجه مرا جلب کرد.
_____ 7. I was confident that I could succeed in the coursework.	_____ 7. من مطمئن بودم که می توانم در ترم (کلاس) موفق باشم.
_____ 8. I had the freedom to complete the coursework my own way.	_____ 8. من برای تکمیل ترم به روش شخصی خودم آزادی داشتم.
_____ 9. I enjoyed the instructional methods used in this course.	_____ 9. من از روش های آموزشی مورد استفاده در این دوره لذت بردم.
_____ 10. I felt that I could be successful in meeting the academic challenges in this course.	_____ 10. من احساس کردم که توانایی مقابله با چالش های علمی این دوره را دارم. (یا من احساس کردم که میتوانم به طور موفقیت آمیزی با چالش های علمی این دوره مقابله کنم.)
_____ 11. The instructional methods engaged me in the course.	_____ 11. های تحصیلی و روش های استفاده شده در دوران ترم سبب شد که من به موضوع علاقمند شوم.
_____ 12. I had options in how to achieve the goals of the course.	_____ 12. من اختیاراتی در مورد چگونگی رسیدن به اهداف این دوره داشتم.
_____ 13. I enjoyed completing the coursework.	_____ 13. از ترمی که سپری شد لذت بردم.

_____ 14. I was capable of getting a high grade in this course.	_____ 14. من قادر به گرفتن نمره بالا در این دوره بودم.
_____ 15. The coursework was interesting to me.	_____ 15. ترم برای من جالب توجه بود.
_____ 16. The instructor was willing to assist me if I needed help in the course.	_____ 16. در صورت نیاز به هرگونه کمک در کلاس، استاد مشتاقانه مرا یاری می کرد.
_____ 17. I had control over how I learned the course content.	_____ 17. من بر نحوه ی یادگیری محتوای درس در کلاس کنترل داشتم.
_____ 18. Throughout the course, I felt that I could be successful on the coursework.	_____ 18. در تمام طول این دوره (تحصیلی)، احساس می کردم که این ترم می توانم موفق شوم.
_____ 19. I found the coursework to be relevant to my future.	_____ 19. من به این نتیجه رسیدم که این ترم بر آینده ام تاثیرگذار خواهد بود.
_____ 20. The instructor cared about how well I did in this course.	_____ 20. مربی (استاد) بر نحوه ی عملکرد من در کلاس اهمیت می دهد.
_____ 21. I will be able to use the knowledge I gained in this course.	_____ 21. من قادر به استفاده از دانشی که در این ترم به دست آورده ام خواهم بود.
_____ 22. The instructor was respectful of me.	_____ 22. مربی (یا استاد) برای من قابل احترام بود.
_____ 23. The knowledge I gained in this course is important for my future.	_____ 23. دانشی که در این دوره (تحصیلی) به دست آوردم برای آینده ام با اهمیت است.
_____ 24. The instructor was friendly.	_____ 24. مربی خیلی مهربان بود.
_____ 25. I believe that the instructor cared about my feelings.	_____ 25. من معتقدم که استاد نسبت به احساسات من مراقب بود.
_____ 26. I had flexibility in what I was allowed to do in this course.	_____ 26. من در مورد کارهایی که می توانستم در طول دوره (تحصیلی) انجام دهم انعطاف پذیری عمل داشتم.

MUSIC® Inventory (Farsi translation of the Middle/High School Student version)

Purpose

The purpose of the Farsi translation of the Middle/High School Student version of the MUSIC Inventory is to make the MUSIC Inventory accessible to individuals who speak Farsi. The initial translator for this version was Behrouz Atashrouz in Iran. The translation was back-translated to English by Shabnam Kavousi and checked by Brett Jones, which resulted in a minor edit to one of the items. The English items on the following pages are not the back-translations; rather, they are the original English items.

Instructions for Administering This Version

Please closely follow the instruction in the “Instructions for Administering the Middle/High School version of the MUSIC Inventory” section of this document.

Instructions for Scoring This Version

Please closely follow the scoring guidelines in the “Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)” section of this document.

Validity Evidence

Behrouz Atashrouz is using this version of the MUSIC Inventory in Iran. This research is ongoing and will be published soon. Because it is a direct translation of the English version of the MUSIC Inventory, it is likely that this version will demonstrate acceptable validity as well.

The inventory is provided on the following pages.

MUSIC Inventory (Middle/High School Student version)

(نسخه دانش آموزان دبیرستانی)MUSIC پرسشنامه

سوال نمونه 1

لطفا یکی از شماره 1 تا 6 را انتخاب کرده و در آن را در فضای خالی کنار سوال بنویسید.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
کاملا مخالفم	مخالفم	تا حدودی مخالفم	تا حدودی موافقم	موافقم	کاملا موافقم

1. من دوست دارم پیتزا بخورم.

برای این سوال، اگر علاقه زیادی به خوردن پیتزا دارید میتوانید عدد 6 را انتخاب کنید. اگر به طور کلی علاقه ای به خوردن پیتزا ندارید می توانید عدد 1 را انتخاب کنید، یا هر عدد دیگری را در این میان به میزان علاقه تان به پیتزا بستگی دارد. اگر علاقه کمی به پیتزا دارید چه عددی را انتخاب می کنید؟ شاید 2، 3 یا 4. شما می توانید با توجه به علاقه تان به پیتزا هر عددی را انتخاب کنید. شما باید به سوالات این پرسشنامه در یک مقیاس مشابه به صورت واقعی پاسخ دهید.

سوالاتی درباره کلاس علوم

راهنما

آیتم های زیر نظر شما را درباره کلاس علوم و معلم علوم میخواند. لطفا یکی از شماره 1 تا 6 را انتخاب کرده و در آن را در فضای خالی کنار سوال بنویسید.

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
کاملا مخالفم	مخالفم	تا حدودی مخالفم	تا حدودی موافقم	موافقم	کاملا موافقم

_____ 1. The knowledge I gain in science class is important for my future.	1. دانشی که از کلاس علوم _____ به دست می آورم برای آینده من اهمیت دارد.
_____ 2. I am confident that I can succeed in science class work.	2. مطمئن هستم که می _____ توانم در کارهای کلاس علوم موفق شوم.
_____ 3. My science teacher cares about how well I do in science class.	3. معلم کلاس علوم به _____ نحوه عملکرد من در کلاس علوم اهمیت می دهد.
_____ 4. I am capable of getting a high grade in science class.	4. من قادر به گرفتن _____ درجه بالا (نمره بالا) در کلاس علوم هستم.
_____ 5. I have the freedom to complete my science class work in my own way.	5. من برای تکمیل فعالیت _____ های کلاسی به روش شخصی خودم آزادی عمل دارم.
_____ 6. The science class work is interesting to me.	6. فعالیت های کلاس علوم _____ برای من جالب توجه بود.
_____ 7. I feel that I can be successful in meeting the academic challenges in science class.	7. من احساس می کنم که _____ میتوانم به طور موفقیت آمیزی با چالش های علمی در کلاس علوم مقابله کنم.
_____ 8. I enjoy completing science class work.	8. من به طور کامل از _____ فعالیت های کلاس علوم لذت می برم.
_____ 9. In general, science class work is useful to me.	9. به طور کلی، فعالیت _____ های کلاس علوم برای من مفید است.
_____ 10. During science class, I feel that I can be successful on the class work.	10. در طول کلاس علوم، من _____ احساس می کنم می توانم در فعالیت های کلاس موفق باشم.
_____ 11. My science teacher is friendly.	11. معلم علوم من خیلی _____ مهربان است.
_____ 12. I have choices in what I am allowed to do in science class.	12. من در مورد کارهایی _____ که می توانم در کلاس علوم انجام دهم قدرت انتخاب دارم.

_____ 13. I find science class work to be relevant to my future.	13. من دریافته ام که _____ فعالیت های کلاس علوم بر آینده من تاثیر گذار خواهد بود.
_____ 14. My science teacher is willing to assist me if I need help in science class.	14. در صورت نیاز به هر _____ گونه کمک معلم علوم، مشتاقانه به من کمک می کند.
_____ 15. My science teacher is respectful of me.	15 معلم علوم برای من احترام قابل است _____
_____ 16. I have control over how I learn the content in science class.	16. من بر نحوه یادگیری _____ محتوای درس علوم کنترل دارم.
_____ 17. The science class work holds my attention.	17. فعالیت های کلاس علوم _____ توجه من را به خود جلب می کند.
_____ 18. I have options in how to achieve the goals in science class.	18. من برای رسیدن به _____ اهداف کلاس علوم اختیاراتی دارم.

MUSIC® Inventory (Icelandic translation of the Middle/High School version)

Purpose

The purpose of the Icelandic version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Icelandic. The primary translator for this version was Asta Schram.

Hér á eftir koma tvær útgáfur af MMAMI-Icelandic spurningalistanum.

Öllum er heimilt að nota listana en mikilvægt er að orðalagi sé ekki breytt og að heimilda sé getið.

Fyrri listinn var prófaður í náttúrufræði hjá 5. – 8. bekk í grunnskólum á Íslandi. Hann hefur verið notaður í ýmsum námsgreinum og á ýmsum námsstigum, þó ekki með börnum yngri en í 5. bekk. Nemendur svöruðu spurningum á pappír í tímanum.

Frekari aðferðafræðilegar upplýsingar:

https://vtechworks.lib.vt.edu/bitstream/handle/10919/64155/Schram_AB_D_2015.pdf?sequence=2

Seinni útgáfan af listanum hefur verið notuð meðal íslenskra háskólanema. Listarnir eru mjög svipaðir. Orðalag í nokkrum spurningum er miðað við eldri þátttakendur og orðið *námskeið* hefur verið sett í stað *náttúrufræði*. Auk þess hefur orðinu *kennari* í mörgum tilfellum verið breytt í *kennarar*, þar sem oft kenna fleiri en einn í sama námskeiðinu. Þessi spurningalisti var sendur út rafrænt vegna fjölda og aðstæðna (question pro), en einnig er hægt að fá nemendur til að svara á pappír í tímum. Svarhlutfall gæti þá væntanlega orðið hærra. Grein með aðferðafræðilegum upplýsingum er í mótun.

Skilgreiningar á þáttum úr MUSIC módeli í spurningum:

1. Empowerment - Valdefling
2. Usefulness - Gagnsemi
3. Success – Góður árangur
4. Empowerment
5. Caring - Umhyggja
6. Usefulness
7. Success
8. Empowerment
9. Success
10. Interest - Áhugi
11. Caring
12. Interest
13. Success
14. Empowerment
15. Caring
16. Interest
17. Caring
18. Usefulness

Leiðbeiningar fyrir MMAMI-Icelandic- yngri:

Markmið með fyrirlögn spurningalistans er athuga hvort fimm þættir sem tengjast áhugahvöt, þ.e. valdefling, gagnsemi, góður árangur, áhugi og umhyggja, séu til staðar í kennsluumhverfi nemenda. Niðurstöður eru leiðbeinandi fyrir kennara varðandi mótun á kennsluaðferðum og öðru er snertir kennsluumhverfið þannig að áhugahvöt nemenda aukist og þeir verði virkari í námi. Auk þess geta rannsakendur notað spurningalistann í stærri rannsóknum á áhugahvöt.

Nemendur gætu fyllt út listann á síðustu 10 – 15 mínútum kennslustundarinnar. Sumir nemendur gætu þurft á því að halda að lesið væri fyrir þá. Kennarinn í þeirri námsgrein sem verið er að spyrja um má þó ekki lesa eða aðstoða nemandann þar sem hann sér hvaðan svörin koma.

Sá sem leggur könnunina fyrir nemendur les eða segir eitthvað á þessa leið:

Okkur langar til að vita hvað ykkur finnst um námið, hvort ykkur finnst þið vera að ná árangri og hvort þið reiknið með að hafa gagn af því í framtíðinni. Við notum upplýsingarnar frá ykkur til að gera námið og skólana okkar, í heild, ennþá betri. Það er ekki skylda að taka þátt en við yrðum mjög þakklát ef þið væruð tilbúin til að vera með og hafa áhrif. Þið skulið ekki skrifa nafnið ykkar á blaðið því að það á ekki að vera hægt að vita hver á hvaða blað. Við biðjum ykkur að svara heiðarlega því sem ykkur finnst. Þegar þið eruð búin að fylla út blaðið, setjið þið það í umslagið sem er við dyrnar um leið og þið farið út. Reynið að fara hljóðlega svo þið truflað engan sem er enn að fylla út könnunina. Kærar þakkir fyrir þátttökuna.

MMAMI-Icelandic – spurningalisti – yngri (ca. 11 – 18 ára)

Þessi atriði eru um _____tímana í vetur.
Veldu stig á skalanum frá 1 og upp í 6.

1 Mjög ósammála	2 Ósammála	3 Nokkuð ósammála	4 Nokkuð sammála	5 Sammála	6 Mjög sammála
-----------------------	---------------	-------------------------	------------------------	--------------	----------------------

1. ____Ég hef svolítið val um hvað ég geri í _____-tímum.
2. ____Það sem ég læri í _____-tímum er mikilvægt fyrir framtíð mína.
3. ____Ég get fengið háa einkunn í _____ (námsgrein).
4. ____Ég hef frelsi til að klára vinnuna í _____(námsgr.) á minn eigin hátt.
5. _____(námsgrein) - kennarinn minn sýnir mér virðingu.
6. ____Mér finnst ég almennt hafa gagn af því sem ég er að læra í _____
7. ____Ég er viss um að ég get náð góðum árangri í _____
8. ____Ég ræð því hvernig ég vinn með eða læri námsefnið.
9. ____Mér finnst ég geti náð góðum árangri í _____
10. ____Ég hef áhuga á námsefninu í _____
11. _____kennarinn er tilbúinn til að hjálpa mér ef ég þarf á hjálp að halda.
12. ____Ég hef ánægju af að sinna vinnunni í _____
13. ____Mér finnst ég geti ráðið við það sem ég á að gera í _____.
14. ____Ég get klárað vinnuna í _____ á ýmsan hátt.
15. _____kennarinn minn vill að mér gangi vel í tímum.
16. ____Vinnan í _____-tímum heldur athygli minni.
17. _____kennarinn minn er vingjarnlegur.
18. ____Mér finnst vinnan og námið í _____-tímum vera þýðingarmikið fyrir framtíðina.

MMAMI-Icelandic – spurningalisti – (eldri en 18 ára)

Þessi atriði eiga við _____ (námskeið/námssgrein) í vetur.
Veldu stig á skalanum frá 1 og upp í 6.

1 Mjög ósammála	2 Ósammála	3 Nokkuð ósammála	4 Nokkuð sammála	5 Sammála	6 Mjög sammála
-----------------------	---------------	-------------------------	------------------------	--------------	----------------------

1. Ég hef nokkurt val um það hvernig ég næ markmiðum námskeiðins.
2. Það sem ég læri í námskeiðinu er mikilvægt fyrir framtíð mína.
3. Ég get náð góðri lokaeinkunn í þessu námskeiði.
4. Ég hef frelsi til að klára verkefni námskeiðsins á minn eigin hátt.
5. Kennarar í námskeiðinu sýna mér virðingu.
6. Mér finnst ég hafa gagn af því sem ég er að læra í námskeiðinu.
7. Ég er viss um að ég get náð góðum árangri í námskeiðinu.
8. Ég ræð því hvernig ég vinn með eða læri námsefnið.
9. Mér finnst ég geti náð góðum árangri í námskeiðinu.
10. Ég hef áhuga á námsefninu í námskeiðinu.
11. Kennarar eru almennt tilbúnir til að hjálpa mér ef ég þarf á hjálp að halda.
12. Ég hef ánægju af að sinna náminu í námskeiðinu.
13. Mér finnst ég geti ráðið við það sem ég er að gera í tímum.
14. Ég get lokið verkefnum í námskeiðinu á ýmsan hátt.
15. Kennararnir vilja að mér gangi vel í námskeiðinu.
16. Það sem við erum að gera í tímum heldur athygli minni.
17. Kennararnir í námskeiðinu eru vingjarnlegir.
18. Mér finnst vinnan í námskeiðinu vera þýðingarmikil fyrir framtíð mína.

MUSIC® Inventory (Spanish translation of the College Student version)

Purpose

The purpose of the College Student version of the MUSIC Inventory is to measure the extent to which college students perceive the presence of each of the MUSIC model components in a college course. It can be used by professors to help them identify areas of strengths and weaknesses related to factors that affect students' motivation and engagement.

The purpose of the Spanish translation of this inventory is to make it accessible to individuals who speak Spanish. The primary translator for this version was Juan M. Cruz.

Instructions for Administering This Version

Please closely follow the instruction in the “Instructions for Administering the College Student version of the MUSIC Inventory” section of this document.

Instructions for Scoring This Version

Please closely follow the scoring guidelines in the “Instructions for Scoring the MUSIC Inventory (College Student version)” section of this document.

Validity Evidence

The validity evidence for the use of the Spanish translation of this version of the MUSIC Inventory with college students is very good. In a sample of 201 undergraduate engineering students, Jones, Li, and Cruz (2017) reported Cronbach's alpha values of .88 for empowerment, .93 for usefulness, .91 for success, .95 for interest, and .92 for caring. Confirmatory factor analysis showed that the five-factor model fit the data well, as demonstrated by acceptable fit indices.

The inventory is provided on the following page.

Por favor califique los ítems de esta sección con la siguiente escala:

1	2	3	4	5	6
Muy en desacuerdo	En desacuerdo	Parcialmente en desacuerdo	Parcialmente de acuerdo	De acuerdo	Muy de acuerdo

Tenga en cuenta que la palabra actividades se refiere a todas las actividades que ha hecho en el curso incluyendo tareas, talleres, trabajos, proyectos, lecturas, etc.

- _____ 1. Las actividades del curso me llaman la atención.
- _____ 2. Tengo la oportunidad de decidir por mí mismo(a) cómo alcanzar los objetivos del curso.
- _____ 3. En general, las actividades del curso son útiles.
- _____ 4. El(la) profesor(a) está disponible para atender mis dudas relacionadas con las actividades del curso.
- _____ 5. Las actividades del curso son beneficiosas para mí.
- _____ 6. Me llaman la atención los métodos de enseñanza usados en este curso.
- _____ 7. Confío en mi capacidad de realizar exitosamente las actividades del curso.
- _____ 8. Tengo la libertad de realizar las actividades del curso a mi manera.
- _____ 9. Disfruto los métodos de enseñanza utilizados en este curso.
- _____ 10. Me siento en la capacidad de alcanzar los retos académicos del curso.
- _____ 11. Los métodos de enseñanza me involucran (enganchan) activamente en el curso.
- _____ 12. Tengo diferentes opciones para alcanzar los objetivos del curso.
- _____ 13. Disfruto las actividades del curso.
- _____ 14. Me considero capaz de obtener una alta calificación en este curso.
- _____ 15. Las actividades del curso me parecen interesantes.
- _____ 16. El(la) profesor(a) está dispuesto a ayudarme cuando lo(la) necesite.
- _____ 17. Tengo control sobre cómo aprendo los contenidos del curso.
- _____ 18. A lo largo del curso he sentido que puedo realizar con éxito las actividades.
- _____ 19. Considero que las actividades son relevantes para mi futuro.
- _____ 20. El(la) profesor(a) se preocupa por mi desempeño en el curso.
- _____ 21. Seré capaz de usar los conocimientos adquiridos en este curso.
- _____ 22. El(la) profesor(a) es respetuoso conmigo.
- _____ 23. Los conocimientos adquiridos en este curso son importantes para mi futuro.
- _____ 24. El(la) profesor(a) es amigable.
- _____ 25. Creo que el(la) profesor(a) se preocupa por cómo me siento.
- _____ 26. Es flexible lo que se me permite hacer en este curso.

MUSIC® Inventory (Turkish translation of the Middle/High School version)

Purpose

The purpose of the Turkish translation of the Middle/High School Student version of the MUSIC Inventory is make the MUSIC Inventory accessible to individuals who speak Turkish. The initial translator for this version was Ebru Tuncer Boon, a faculty member at Dokuz Eylül University, in İzmir, Turkey. It was back-translated to English by Sumeyra Sahbaz and Sehmuz Akalin. Brett Jones checked the back-translation, which resulted in a minor edit to one of the items. The English items on the following pages are not the back-translations; rather, they are the original English items.

Instructions for Administering This Version

Please closely follow the instruction in the “Instructions for Administering the Middle/High School version of the MUSIC Inventory” section of this document.

Instructions for Scoring This Version

Please closely follow the scoring guidelines in the “Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)” section of this document.

Validity Evidence

Ebru Tuncer Boon is using this version of the MUSIC Inventory in Turkey. This research is ongoing and we have no evidence yet that the translation is valid for use in Turkey. However, because it is a direct translation of the English version of the MUSIC Inventory, it is likely that this version will demonstrate acceptable validity as well.

Instructions for Scoring the MUSIC Inventory (Middle/High School Student version)

To obtain a score for each scale, average the values for the items in the scales as shown below.

Empowerment score = (item 5 + item 12 + item 16 + item 18) / 4

Usefulness score = (item 1 + item 9 + item 13) / 3

Success score = (item 2 + item 4 + item 7 + item 10) / 4

Interest score = (item 6 + item 8 + item 17) / 3

Caring score = (item 3 + item 11 + item 14 + item 15) / 4

Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a student is highly motivated and engaged when she is high on only one or two of the MUSIC components and low on the others.

The inventory is provided on the following page.

Yönerge

Aşağıda bulunan 18 soru şu anda aldığınız FEN BİLİMLERİ DERSİ VE FEN BİLİMLERİ ÖĞRETMENİ ile ilgilidir.

Lütfen 1'den 6'ya kadar olan seçeneklerden birini soruların yanındaki kutuya yazınız.

1 Kesinlikle katılmıyorum	2 Katılmıyorum	3 Kısmen katılmıyorum	4 Kısmen katılıyorum	5 Katılıyorum	6 Kesinlikle katılıyorum
---------------------------------	-------------------	-----------------------------	----------------------------	------------------	--------------------------------

- _____ 1. Fen Bilimleri dersinde kazandığım bilgiler geleceğim için önemlidir.
- _____ 2. Fen Bilimleri dersinde başarılı olacağıma inanıyorum.
- _____ 3. Fen Bilimleri öğretmenim fen bilimleri dersinde ne kadar iyi olduğuma önem verir.
- _____ 4. Fen Bilimleri dersinden yüksek not almaya yeterliyim.
- _____ 5. Fen Bilimleri dersindeki çalışmalarımı istediğim yolla tamamlama özgürlüğüm vardır.
- _____ 6. Fen Bilimleri dersindeki çalışmalar benim için ilginçtir.
- _____ 7. Fen Bilimleri dersinde akademik zorlukları karşılamada başarılı olabileceğimi düşünüyorum.
- _____ 8. Fen Bilimleri dersinde sınıf çalışmalarına katılmaktan zevk alırım.
- _____ 9. Genellikle, Fen Bilimleri dersindeki çalışmalar benim için yararlıdır.
- _____ 10. Fen Bilimleri dersi boyunca, sınıf çalışmalarında başarılı olacağımyı hissedirim.
- _____ 11. Fen Bilimleri öğretmenim cana yakındır.
- _____ 12. Fen Bilimleri dersinde yapmam gerekenler arasından seçme şansım vardır.
- _____ 13. Fen Bilimleri dersindeki çalışmalarını geleceğimle alakalı buluyorum.
- _____ 14. Fen Bilimleri dersinde yardıma ihtiyaç duyduğum zaman öğretmenim bana yardımcı olmaya isteklidir.
- _____ 15. Fen Bilimleri öğretmenim bana saygılıdır.
- _____ 16. Fen Bilimleri dersinde işlenen konuyu nasıl öğreneceğimi kontrol edebilirim.
- _____ 17. Fen Bilimleri dersindeki çalışmalar ilgimi canlı tutar.
- _____ 18. Fen Bilimleri sınıfındaki hedeflere nasıl ulaşacağım konusunda seçeneklerim vardır.

MUSIC® Inventory (Cognitive Training version for clients)

Purpose

The purpose of the Cognitive Training version for clients is to measure the extent to which clients perceive the presence of each of the MUSIC model components in a clinical environment. It can be used by clinicians to help them identify areas of strengths and weaknesses related to factors that affect clients' motivation and engagement while participating in cognitive training sessions intended to provide cognitive remediation for patients with psychological disorders (see Medalia, Revheim, & Herlands, 2009, for examples of the types of clinics to which I am referring).

This version of the MUSIC Inventory is almost identical to the Middle/High School Student version of the MUSIC Inventory except that I worked with Dr. Alice Medalia and Marie Hansen at Columbia University to change the wording of the items to make them appropriate for use with patients in clinical settings.

Instructions for Administering the Cognitive Training version of the MUSIC Inventory

- Title the inventory as general as possible, such as “Cognitive Training Questionnaire,” and delete the title text above the words “Completed by” in the examples on the following pages. Titling the inventory as “motivation” or something similar could affect clients' responses because of their preconceived notions of this word.
- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown.
- For the 1 to 6 rating scale, provide each number along with the associated description (e.g., 1 = *disagree*). The scale is presented after each item in this version. The scale is shown correctly in this guide.
- The items are worded in the present tense if the inventory is administered at the beginning or middle of the cognitive training sessions. For example, if the sessions occur once a week for 40 weeks, then the present tense version could be administered at the end of Week 1 or any week thereafter until Week 40. The past tense version should be used near the end of the sessions, around Week 39 or 40. Both of these versions are presented on the following pages.
- Do not interpret any of the items for the clients, they must make their own interpretation of the items. You may say something like: “Answer it based on whatever you think it means.”
- Responses can be collected through online survey software (e.g., Survey Monkey, Qualtrics) or on a paper version of the inventory.

To complement the scores from the MUSIC Inventory, clinicians can administer open-ended items to clients, such as those provided below. There is one item for each of the MUSIC model components. These items are based on similar questions from Jones et al. (2012).

1. What could be changed in this training to make you feel you had more control over your learning?
2. What could be changed in this training to make it more useful to you?
3. What could be changed in this training to help you feel you could be more successful in it?
4. What could be changed in this training to make it more interesting and enjoyable?
5. What could be changed in this training to make you feel that the coach cares about whether you succeed at your goals?

Validity Evidence

The Cognitive Training version for clients has been used in the U.S. and translated to Danish and Japanese. Dr. Alice Medalia at Columbia University is currently leading a study with a several other universities to collect data that will be used to examine whether this version of the MUSIC Inventory is valid for use with this population. Our initial assessment in the fall of 2017 using data from several clinical sites indicates that the scores produced from this version are valid. We are in the process of completing our findings and we should have a published paper with our findings soon.

The inventory is provided on the following pages.

MUSIC Inventory (Cognitive Training version for clients, present tense)
 (to be administered near the beginning or middle of a the cognitive training sessions)

Completed by: _____ **Date:** _____

Directions

These items ask about your experience in COGNITIVE TRAINING up to this point. Consider everything you do in cognitive training when selecting your answer including cognitive exercises, discussion, and talking with the instructor. There are no right or wrong answers - we are only interested in your honest opinion.

The questions ask you to select a number for your answer. Please circle the number that best describes what you believe about each statement.

1. The skills I gain in Cognitive Training are important for my future.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

2. I am confident I can succeed in Cognitive Training activities.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

3. My Cognitive Training instructor cares about how well I do.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

4. I am capable of doing well in the activities during Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

5. I have the freedom to work on the activities in Cognitive Training in my own way.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

6. The Cognitive Training activities are interesting to me.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

7. I feel that I can be successful at meeting the cognitive challenges in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

8. I enjoy completing the activities in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

9. In general, Cognitive Training activities are useful to me.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

10. During Cognitive Training, I feel that I can be successful in the activities.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

11. My Cognitive Training instructor is friendly.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

12. I have choices in what I am allowed to do in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

13. I find Cognitive Training to be relevant for what I want to do in the future.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

14. My Cognitive Training instructor is willing to assist me if I need help.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
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15. My Cognitive Training instructor is respectful of me.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

16. I have control over the way I practice skills in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
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17. The Cognitive Training activities hold my attention.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

18. I have options in how to achieve better cognitive skills in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

MUSIC Inventory (Cognitive Training version for clients, past tense)
 (to be administered near the end of a the cognitive training sessions)

Completed by: _____ **Date:** _____

Directions

These items ask about your experience in the COGNITIVE TRAINING up to this point. Consider everything you have done in cognitive training when selecting your answer including cognitive exercises, discussion, and talking with the instructor. There are no right or wrong answers - we are only interested in your honest opinion.

The questions ask you to select a number for your answer. Please circle the number that best describes what you believe about each statement.

1. The skills I gained in Cognitive Training are important for my future.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

2. I was confident that I could succeed in Cognitive Training activities.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

3. My Cognitive Training instructor cared about how well I did in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

4. I felt capable of doing well in the activities during Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

5. I had the freedom to work on the activities in Cognitive Training in my own way.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

6. The Cognitive Training activities were interesting to me.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

7. I felt that I could be successful at meeting the cognitive challenges in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

8. I enjoyed completing the activities in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

9. In general, the Cognitive Training activities were useful to me.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

10. During Cognitive Training, I felt that I could be successful in the activities.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

11. My Cognitive Training instructor was friendly.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

12. I had choices in what I was allowed to do in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

13. I found Cognitive Training to be relevant for what I want to do in the future.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

14. My Cognitive Training instructor was willing to assist me if I needed help during the activities.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

15. My Cognitive Training instructor was respectful of me.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

16. I had control over the way I practiced skills in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

17. The Cognitive Training activities held my attention.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

18. I had options in how to achieve better cognitive skills in Cognitive Training.

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Somewhat Agree	5 Agree	6 Strongly Agree
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Instructions for Scoring the MUSIC Inventory (Cognitive Training version for clients)

Score each MUSIC component by averaging the values from each item in the scale to produce a mean for the scale. For example, the “usefulness” score = (item 1 + item 9 + item 13) / 3

- eMpowerment = 5, 12,16,18
- Usefulness = 1, 9, 13
- Success = 2, 4, 7, 10
- Interest (situational) = 6, 8, 17
- Caring = 3, 11, 14, 15

Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a person is highly motivated and engaged when he or she is high on only one or two of the MUSIC components and low on the others.

Scales	Items by Scale
Empowerment (4 items)	<ul style="list-style-type: none"> • I have the freedom to work on the activities in Cognitive Training in my own way. • I have choices in what I am allowed to do in Cognitive Training. • I have control over the way I practice skills in Cognitive Training. • I have options in how to achieve better cognitive skills in Cognitive Training.
Usefulness (3 items)	<ul style="list-style-type: none"> • The skills I gain in Cognitive Training are important for my future. • In general, the Cognitive Training activities are useful to me. • I find Cognitive Training to be relevant for what I want to do in the future.
Success (4 items)	<ul style="list-style-type: none"> • I am confident I can succeed in Cognitive Training activities. • I am capable of doing well in the activities during Cognitive Training. • I feel that I can be successful at meeting the cognitive challenges in Cognitive Training. • During Cognitive Training, I feel that I can be successful in the activities.
Interest (3 items)	<ul style="list-style-type: none"> • The Cognitive Training activities are interesting to me. • I enjoy completing the activities in Cognitive Training. • The Cognitive Training Group activities hold my attention.
Caring (4 items)	<ul style="list-style-type: none"> • My Cognitive Training instructor cares about how well I do in the group. • My Cognitive Training instructor is friendly • My Cognitive Training instructor is willing to assist me if I need help. • My Cognitive Training instructor is respectful of me.

MUSIC® Inventory (Cognitive Training version for clinicians)

Purpose

The purpose of the Cognitive Training version for clinicians is to measure the extent to which clinicians believe that clients perceive the presence of each of the MUSIC model components in the cognitive training sessions. The clinician version is different from the client version of the inventory because it is administered to the clinician instead of the client (clinicians can administer it to themselves). I use the term “clinician” for this version as a broad term to include clinicians, therapists, assistants, and anyone who is involved in implementing the training for clients.

The clinician version can be used to identify areas of strengths and weaknesses related to factors that affect clients’ motivation and engagement. It is intended to be used as a reflection tool along with other sources of data, such as the client version of the MUSIC Inventory. The items are almost identical to the client version except I changed the wording to make them appropriate for a clinician to answer.

Instructions for Administering the Clinician version of the MUSIC Inventory

These instructions are for situations in which someone is administering the inventory to one or more clinicians. Clinicians can also administer the inventory to themselves for their own courses.

- Title the inventory as general as possible, such as “Cognitive Training Questionnaire,” and delete the title text above the words “Directions” in the examples on the following pages. Titling the inventory as “motivation” or something similar could affect clinicians’ responses because of their preconceived notions of this word.
- Order the items randomly. The versions in this guide are already ordered randomly and can be used in the order shown.
- For the 1 to 6 rating scale, provide each number along with the associated description (e.g., 1 = *disagree*). The scale is presented correctly in this guide.
- The items are worded in the present tense; however, the inventory can be completed at the end of the cognitive training sessions.
- Do not interpret any of the items for the clinicians, they must make their own interpretation of the items. You may say something like: “Answer it based on whatever you think it means.”
- Responses can be collected through online survey software (e.g., Survey Monkey, Qualtrics) or on a paper version of the inventory.

Validity Evidence

The clinician version of the MUSIC Inventory is intended to be used as a reflection tool by the clinician and has not yet been validated for research purposes (although research is in process).

The inventory is provided on the following page.

MUSIC Inventory (Cognitive Training version for clinicians)

Directions

Think of a cognitive training group for which you want to assess clients' motivation. Consider everything that is done in the group when selecting your answer, including cognitive exercises, discussion, and talking with the instructor. (The term "instructor" is used to denote the person or people leading the group. You may or may not be the instructor for the group you are about to rate now.)

There are no right or wrong answers, we are only interested in your honest opinion. Respond to the items below in relation to one Cognitive Training group using this scale:

1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Somewhat agree	5 Agree	6 Strongly agree
---------------------------	---------------	---------------------------	------------------------	------------	------------------------

Clients believe that:

- _____ 1. the skills they gain in Cognitive Training are important for their future.
- _____ 2. they are confident that they can succeed in the Cognitive Training activities.
- _____ 3. the Cognitive Training instructor cares about how well they do.
- _____ 4. they are capable of doing well in the activities during Cognitive Training.
- _____ 5. they have the freedom to work on the activities in Cognitive Training in their own way.
- _____ 6. the Cognitive Training activities are interesting.
- _____ 7. they can be successful at meeting the cognitive challenges in Cognitive Training.
- _____ 8. they enjoy completing the activities in Cognitive Training.
- _____ 9. in general, Cognitive Training activities are useful to them.
- _____ 10. during Cognitive Training, they can be successful in the activities.
- _____ 11. the Cognitive Training instructor is friendly.
- _____ 12. they have choices in what they are allowed to do in Cognitive Training.
- _____ 13. they find Cognitive Training to be relevant for what they want to do in the future.
- _____ 14. the Cognitive Training instructor is willing to assist them if they need help.
- _____ 15. the Cognitive Training instructor is respectful of them.
- _____ 16. they have control over the way they practice skills in Cognitive Training.
- _____ 17. the Cognitive Training activities hold their attention.
- _____ 18. they have options in how to achieve better cognitive skills in Cognitive Training.

Instructions for Scoring the MUSIC Inventory (Cognitive Training version for clinicians)

Score each MUSIC component by averaging the values from each item in the scale to produce a mean for the scale. For example, the “usefulness” score = (item 1 + item 9 + item 13) / 3

- eMpowerment = 5, 12, 16, 18 (____ + ____ + ____ + ____) / 4 = ____
- Usefulness = 1, 9, 13 (____ + ____ + ____) / 3 = ____
- Success = 2, 4, 7, 10 (____ + ____ + ____ + ____) / 4 = ____
- Interest = 6, 8, 17 (____ + ____ + ____) / 3 = ____
- Caring = 3, 11, 14, 15 (____ + ____ + ____ + ____) / 4 = ____

Look at your scores for each MUSIC component. Higher numbers indicate that your instruction is more consistent with the strategies related to those MUSIC components. Lower numbers indicate that you may be able to implement more strategies consistent with those MUSIC components. These results cannot be interpreted precisely. Instead, they're intended to help you diagnose areas of possible strengths and weaknesses. So obviously, also use your beliefs about your instructional strengths and weaknesses related to clients' MUSIC perceptions. To corroborate your beliefs, you can assess clients' perceptions by asking students to complete the client version of the MUSIC Inventory.

Other important notes:

- Do not sum or average all 18 items because this produces a meaningless value. It is inconsistent with the principles of the MUSIC model to assume that motivation is the sum of empowerment, usefulness, success, interest, and caring. Although this may be true in some cases, it is possible that a person is highly motivated and engaged when he or she is high on only one or two of the MUSIC components and low on the others.

Open-Ended Questions for Students

Where did these open-ended questions for students come from?

This section includes questions from different studies in which the researchers surveyed students about their perceptions related to the components of the MUSIC Model of Motivation (Jones, 2009). There is no one “correct” way to ask students about their perceptions related to the MUSIC model; therefore, you can alter these questions in any way that makes sense for your purposes. I have found that the questions labeled #1 below (the ones asking about change) are the most useful for getting ideas that can be used to redesign instruction.

If the questions you use are the same as, or similar to, the questions from the study below and you present or publish the results, please cite the study. The questions without citations were created by me for this *User Guide*.

Empowerment

1. What could be changed in this course to make you feel you had more choices in the course? (Jones et al., 2012, although the original question used the word “control” instead of “choices”)
2. What choices did you have during the course (or activity)?
3. Which aspects of this course give you control over this course? (Jones et al., 2012)

Usefulness

1. What could be changed in this course to make it more useful to you? (Jones et al., 2012)
2. What do you find useful about this course (or activity)?

Success

1. What could be changed in this course to help you feel you could be more successful in it? (Jones et al., 2012)
2. What makes you feel successful in this course?
3. What makes you feel as though you cannot be successful in this course?

Interest

1. What could be changed in this course to make it more interesting and enjoyable? (Jones et al., 2012)
2. What do you like about this course?
3. What do you find interesting about this course?
4. Which parts of this course are boring?

Caring

1. What could be changed in this course to make you feel that the instructor or other students care about whether you learn the course content and care about you as a person?
2. What could be changed in this course to make you feel that the instructor cares about whether you learn the course content and do well in the course? (Jones et al., 2012)
3. What does the instructor do to provide you with the impression that she cares about whether you learn the course content and do well in the course? (Jones et al., 2012)
4. What does the instructor do to provide you with the impression that she cares about you as a person? (Jones et al., 2012)

Interview Questions for Students

Where did these interview questions for students come from?

This section includes questions from different studies in which the researchers interviewed students about their perceptions related to the components of the MUSIC Model of Motivation (Jones, 2009). There is no one “correct” way to ask students about their perceptions related to the MUSIC model; therefore, you can alter these questions in any way that makes sense for the objectives of your interviews. The studies had different purposes which is why the questions from each study are slightly different. Use the questions that allow you to best meet your objectives.

If the questions you use are the same as, or similar to, the questions from a study below and you present or publish the results, please cite the study.

STUDY 1 – The following questions are from:

- Evans, M. A., Jones, B. D., & Akalin, S. (2012, April). *Leveraging digital game design in an informal science learning environment to motivate high school students in biology*. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.

NOTE: The word “activity” can be substituted with the specific activity that a student is working on.

Empowerment

- How much control do you have over what you’re working on? (How much do you feel like you are doing what you want to be doing during this activity?)
 - a. What things do you have control over?

Usefulness

- How useful is this activity for your goals this year or in the future?
 - a. In what ways is it useful?

Success

- How successful do you think that you will be at this activity?
 - a. (If needed): Why?

Situational Interest

- How interested are you in working on this activity? (How much do you enjoy this activity?)
 - a. What about it interests you?

Individual Interest

- How important is this activity to you?
 - a. Why is it important?

Academic Caring (teacher)

- How much does your teacher want you to succeed at this activity? (How much does your teacher like to help you on this activity?)
 - a. How do you know?

Personal Caring (teacher)

- How much does your teacher care about you?
 - a. How do you know?

Academic Caring (other students)

- How much do other students want you to succeed at this activity?
 - a. How do you know?

Personal Caring (other students)

- How much do other students care about you?
 - a. How do you know?
-

STUDY 2 – The following questions are from:

- Jones, B. D., Epler, C. M., Mokri, P., Bryant, L. H., & Paretti, M. C. (2013). The effects of a collaborative problem-based learning experience on students' motivation in engineering capstone courses. *Interdisciplinary Journal of Problem-based Learning*, 7(2). doi:10.7771/1541-5015.1344

eMpowerment

- As you worked on your project, what aspects of the project were you able to control?
- What types of decisions did your group make in regards to how your group functioned?
 - What was the result of those decisions?
- What types of decisions did your advisor make for you?

Usefulness

- How will what you are learning in this group project be useful to your short-term goals? Long-term goals?
- Was working within a collaborative group a realistic simulation of a real-world work experience? Please describe.

Success

- What aspects of this project make you feel competent? Overwhelmed? Bored?
- Describe the feedback you have received from the instructor and your advisor on this project.
 - How does that differ from the feedback you received from your group members?
 - What feedback has contributed most to your success?
- Do you believe that working within a group made this project easier or more challenging? Please explain.

Interest

- How did your group determine the topic you selected?
- Describe your initial interest in the project.
- How did working in a group influence your interest in the project?
- Describe your interest in the project now.
 - Has this changed? If yes, what caused the change?
- Are the ideas and/or topics in this project really important to you? Please explain what makes them important to you.
 - That is, do you care about the ideas, issues, and/or topics involved in this project?

Caring

- Describe your group's dynamics.
 - Describe how you interacted with your group members.
 - What would you change about the dynamics of your group?
 - Describe your group's relationship with your advisor.
 - What role did your project's advisor play?
 - How does your advisor show respect and concern for your group?
 - What would you change about the role of your advisor?
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STUDY 3 – The following questions are from:

- Jones, B. D., Chittum, J., Akalin, S., Schram, A., Fink, J., Schnittka, C., Evans, M., & Brandt, C. (in press). Elements of design-based science activities that affect students' motivation. *School Science and Mathematics*.

NOTE: The title "Studio STEM" can be substituted with another program or the specific activity that the students worked on.

eMpowerment

- What choices did you have in Studio STEM?

Usefulness (for short-term goals)

- What have you done in Studio STEM that's useful to your life right now?

Success

- What made you feel that you could be successful in Studio STEM?

Interest

- What was interesting about the presentations?

Caring

- How did the instructors show that they cared about your success in Studio STEM?
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Interview Questions for Teachers

Where did these interview questions for teachers come from?

The questions in this section are intended to be asked to teachers. They were created by Jones (2009) for instructors to use to begin thinking about their teaching. However, they could be used just as well during an interview with a teacher.

QUESTIONS – The following questions are from:

- Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC Model of Academic Motivation. *International Journal of Teaching and Learning in Higher Education*, 21(2), 272-285.

eMpowerment

1. Do you feel that students have control over some aspects of their learning?
 - a. Do they have choices about what they can do?
2. Do you believe, as their teacher, that you empower them to learn the material and do not try to manipulate their behavior?

Usefulness

1. Do you believe that students understand why your lessons are useful to their interests, to their career goals, and/or in the “real-world”?

Success

1. Do you believe that your lessons clearly state your expectations for them?
2. Do you think the learning activities are challenging in that they are not too hard or easy?
3. Do you provide regular feedback about their level of competence?
 - a. (Another way to say this: How do they know how well they’re doing?)
4. Do they believe that they can succeed?
 - a. Do you feel that the lessons create a belief that they can succeed if they put forth the effort?

Interest

1. Do you feel that students are interested in the lessons?

Caring

1. Do you feel that the students believe that you care about whether they achieve the objectives of the lesson?
 2. Do you feel that the students believe that you care about their well-being?
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