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THE UNDERSTANDING OF THE FORMATIVE ASSESSMENT PROCESS BY
MICHIGAN EDUCATORS

By

Victor Bugni

THESIS

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SIGNATURE APPROVAL FORM

THE UNDERSTANDING OF THE FORMATIVE ASSESSMENT PROCESS BY
MICHIGAN EDUCATORS

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ABSTRACT

THE UNDERSTANDING OF THE FORMATIVE ASSESSMENT PROCESS BY MICHIGAN EDUCATORS

By

Victor Bugni

Districts purchase assessments to inform teachers as to what students are learning and at which levels they are performing. Black and Wiliam (1998) told us that educators must understand the importance of feedback and student participation in the formative assessment process to enhance learning. Teachers can engage in formative practices to help close the gap between what students know and the learning objectives. This study used a quantitative survey to collect Michigan educators' awareness of the use of formative assessment components in their classrooms, their skill for the use of these components, their perception of support for using these components, and their agreement with a proposed definition for formative assessment. Responses were used to identify trends between educator content areas, geographic region, and educator job duties. Although the response numbers were low, results from this study can assist with designing future work. Future work can have regional impact and focus on specific components designed to educator role for instance: building confidence in classroom teachers around the component of Extending Thinking During Discourse.

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INTRODUCTION

People permit their preconceptions and even misconceptions to define terms in a way that is familiar, and best suits their needs (William & Leahy, 2015). Building a common consensus of meaning and definition is difficult; and when dealing with a variety of people with altered views it can seem impossible. Practicing educators have a broad understanding, and varied definition, of formative assessment. Some may feel that it is a computer adaptive assessment and others may believe that it is a daily quiz.

William and Leahy (2015) expressed how it is less important to agree on a definition of formative assessment as it is to know how an assessment will help to build an understanding as to how it assists with the student learning process and increasing knowledge. Vlachou (2015) pronounced that the contrast between formative and summative assessment types further creates a barrier for understanding formative assessment, also referred to as assessment for learning (AfL). This barrier is accelerated when dealing with high-stakes accountability and when student assessment scores are used to measure school and district success.

Along with others, Wylie and Lyon (2016) provided a background understanding for the definition and components of formative assessment as outlined in the *Using the Formative Assessment Rubrics, Reflection and Observation Tools to Support Professional Reflection on Practice* (FARROP) observation tool. They explained how the FARROP “Included...a set of rubrics and tools to support self-reflection and peer observation” (p. 4). The FARROP provided background on ten components of formative assessment. These components were used in this study to build a structure and common

point for collection and analysis of survey data received from Michigan educators during early fall of 2017. Table 1 shows the ten components used for this study.

Table 1 <i>Components of Formative Assessment as outlined in the FARROP</i>	
Learning Goals	Criteria for Success
Tasks and Activities that Elicit Evidence of Student Learning	Questioning Strategies that Elicit Evidence of Student Learning
Extending Thinking During Discourse	Descriptive Feedback
Peer Feedback	Self-Assessment
Collaborative Culture of Learning	Using Evidence to Inform Instruction

In this study, the components were used in an attempt to answer two research questions:

1. What is the teacher’s, and administrator’s understanding of the Formative Assessment Process, and can this be related to the confidence level for using these practices in their instruction?
2. Is the understanding of formative assessment dependent on geographic region or content area of the educator?

It is anticipated that answers will assist with future work in Michigan when designing “entry points” for professional learning around formative assessment practices.

CHAPTER ONE: LITERATURE REVIEW

Heitink, Van der Kleij, Veldkamp, Schildkamp, and Kippers (2016) expressed that one difference cited in the definition of formative assessment (also referred to as Assessment for Learning AfL) often centers around the roles of the educator and the student. They also outlined that teacher belief and attitude around assessment often plays a large role in the implementation, or lack thereof, of formative assessment in the classroom. Chen (2015) described how this educator attitude extends across countries and factors into educational philosophy. Heitink et al. (2016) further discussed how principals and school leaders play a role in setting an environment for implementation and how this role is imperative. Hui, Brown, and Chan (2017) explained, “Recent education policy reforms in Hong Kong have suggested the need for changes in assessment practices.... Teachers are urged to use assessment methods other than tests and examinations to provide timely feedback to students to enhance their learning” (p. 41). If leaders and teachers can change the practices and mindset that surround student assessment, there may be more of a willingness to embrace non-traditional forms of assessment and use it for informing the instructional pathway. Vlachou (2015) referenced how the focus on summative assessment and the fear of accountability has caused teachers to evade creative practices for evaluating student learning and understanding. She continued to explain that in countries where the focus is on summative assessment, assessment of learning, with high stakes exams there appears to be lower implementation of assessment for learning strategies by teachers. The AfL practices need time for both teachers and students to reflect on the learning that is taking place and adjust the instruction. “... fundamental changes are required in both the

classroom culture and the educational system where AfL exists” (Vlachou, 2015, p. 105).

Making changes to the educational culture and the impact of summative assessment may result in a more confident use of assessment for learning in the classroom. Box, Skoog, and Dabbs (2015) discussed that an increase in reform practices focused on using AfL has not been adopted by educational leaders. They said, “Despite increased interest in formative assessment and related professional development opportunities, a disconnect remains between research and practice by the ones that matter most, the classroom teacher...” (p. 957). However, teachers need more than just a connection to the research. They need to feel confident in the value of assessment for learning. Further, teachers need to be sure that their accountability measures will support a shift in their practice when using formative practices to measure student learning.

Moeed (2015) told us, “... formative assessment is about planning for learning, improving learning, enhancing learning, finding out what is learned, and planning the future steps for learning—in short, it is all about *learning*, and yet it is called *assessment*” (p. 185). Furthermore, Heitink et al. (2016) stated,

AfL is characterized by the use of formally gathered (quantitative) evidence about student learning to formulate feedback and to inform decisions, based on assessment activities that aim to determine whether, or to what extent, a pre-set level of performance has been achieved. Approaching AfL from an inquiry perspective results in the use of primarily qualitative information (e.g., observations, demonstrations and conversations) to generate feedback, in a process of discovery, reflection, understanding and review. (p. 52)

With these considerations of formative assessment, one could presume that the practices of formative assessment align more with those of instruction than assessment. Chen (2015) suggested that teachers may struggle to try new strategies for fear of their students performing poorly on high-stakes assessments. The stresses of high-stakes tests, the broad understanding of formative assessment, and the direct integration to instructional strategies cause formative assessment to be reviewed as an additional task by preoccupied educators. Wiliam and Leahy (2015) explained the need to identify learning outcomes, and the need for these to be introduced authentically to all students. They suggested that this process can become a compliance activity that does not lead to repeated reference or student internalization of the learning outcome. The consequences are a predictable 'culture of compliance'; teachers post learning outcomes on a board, students copy these into their notebooks, and the lesson then often proceeds without further reference to the learning outcome..." (p. 28). When instructors know and post the learning outcome, they need to use this as part of the learning. Additionally, Wiliam and Leahy (2015) told us that good instructors do not always begin a lesson with posting, or telling, the learning outcome. They help us to remember that learners are interested in arguments, discussion, ideas and puzzles.

Heitink et al. (2016) explained how studies showed the need and impact of professional learning for successful implementation of AfL. Heitink et al. (2016) referenced Birenbaum et. al. (2011) for finding that professional learning created environments where AfL was elevated in quality; and this learning created school climates where teachers were confident with improving their practice and even motivated to do so. This climate of professional learning was supported by administration and

centered around improvement. Heitink et al. (2016) envisioned a classroom climate for students to make mistakes towards learning and where students take honest feedback as constructive support.

Chen, Lui, Andrade, Valle, and Mir (2017) found that training on formative assessment for arts educators led to increased scores on pre-and post-assessments and helped students to engage in peer feedback. Their work focused on criterion-referenced formative assessment processes. This assists with understanding that one focus of formative assessment is knowing what a student should be able to accomplish and what the learning outcomes need to be. Further, “[f]ormative assessment involves concrete steps, such as (a) anticipating and eliciting students’ ideas, (b) evaluating students’ ideas, and (c) crafting next steps in instruction that account for students’ ideas and support students’ learning” (Sabel, Forbes, & Zangori, 2015, p. 422). With the focus on knowing specific learning targets for students, teachers will need to have a strong understanding of content in order to properly adjust instruction and tasks to help students grow. Sabel, Forbes, and Zangori (2015) cite Coffey et. al. (2011) with identifying an increase in research on subject knowledge in formative practices. This focus on content and learning goals may cause there to be a varied perception of formative assessment across content areas as educators refine practice to fit the needs of their classrooms.

CHAPTER TWO: METHODOLOGY

Quantitative methods were used to complete this study. Creswell (2012) argued that this type of method is best employed if there will be a pre-determined approach to collecting data and if close-ended questions will be posed through an instrument-based process.

This study was conducted using survey research design. Creswell (2012) defined survey research as a method of research that involves administration of a survey to help describe perceptions, attitudes, and behaviors of a population. In this study, the population surveyed included educators in Michigan. The questions were designed for teachers and administrators, while considering that other educators (paraprofessionals, media specialists, etc.) may respond to the survey.

The components of formative assessment, as defined by Wylie and Lyon (2016), were used to create the body of the survey. Initially, some demographic information was collected from participants. Participants were asked for the endorsement area in which their last educator evaluation was performed, the type of certificate held, their primary grade level in which they have influence, the district size, and their regional district (ISD/ESA) support provider. Questions were then posed on their understanding and confidence of using the formative assessment components. A 5-point Likert scale of strongly disagree to strongly agree for each formative assessment components was used to define participant confidence and perception. Appendix A shows the questions that were included in the survey. The quantitative nature of the questions helped to expedite the analysis process.

The survey for this study was produced in Qualtrics and was distributed to educators throughout the state of Michigan via email. The email included a request to complete the survey and to share the request with fellow educators. Educators for the original distribution all had a large service area (district central office staff, regional support staff, institution of higher education, etc.). To maintain anonymity of participants, no names or identifying information was collected through the survey.

The survey remained open for fifteen days during the end of September and closed on October 1, 2017. Although the survey was distributed statewide, the timeline and the time of year (beginning academic calendar) may be a factor as to a low number of respondents (n=44). Additional studies will need to adjust for these factors. After the closure of the survey, the analysis team reviewed all results and drew conclusions based on the responses. This process identified patterns in the use, confidence, and support for the components of formative assessment by position, content area, and geographic location of the district.

CHAPTER THREE: RESULTS

3.1 Demographic Results

This study was distributed to educators at all levels of the system in Michigan. It was important to reach varied levels of educators and review their responses. This would provide an understanding of not only how teachers view the components but also how their administrators, coaches, and support educators feel about the components. Of the respondents 79.6% were classroom teachers, 9.1% classified themselves as “other” educators, 6.8% worked for regional support agencies (ISD/ESA), and 2.3% for both building administrator and central office administrator. Of those selecting “other” educator, a majority responded as a coach. In Michigan, coaches often work directly with teachers to refine practices and support differentiation for learners. This implies that the responses hold a direct link to the classroom.

Currently, the Michigan teacher has the option for holding one of three different certificates. In this survey, 81.8% of respondents held a professional certificate, 13.6% held a provisional certificate, and 2.3% held the advanced professional certificate (first round of issuance in 2017). A majority of the responding educators have experience in the classroom. They may not currently be in the classroom -- they may have a role as an instructional coach. However, in Michigan, the professional certificate is issued after a provisional period to those educators who have classroom experience, professional learning experiences, and often additional coursework beyond their teacher preparation.

The grade level distribution of responding educators was overall well balanced. The greatest number of respondents were last evaluated in grades pre-kindergarten to second (32.6%). The second most populous grade band was grade three through five

(25.6%). This combines for an overall percent of responders for elementary grades being 58.2%. In Michigan, this is one of two levels of certificates that is available to educators -- elementary and secondary. Respondents holding a position in grades nine through twelve were the third highest in the survey at 20.9%. The middle grades, six through eight, comprised 11.6% of the respondents -- totaling 32.5% of respondents in a secondary placement in Michigan. The remaining 9.3% of respondents said that their role was to primarily support adult learning (professional development). This too will include coaches in addition to central office and ISD/ESA staff.

The survey asked educators to select their area of endorsement for which they were last evaluated. Eighty-one endorsement codes were provided. Focusing on the core content areas resulted in 86.7% of respondents. Endorsements in English Language Arts (ELA) were selected by 60.4% of educators with most being in elementary grades. Mathematics educators represented 15.8% of educators responding to the survey. Social Science educators were represented at 7.9%. Science content was represented at 2.6%. Additional responses included Agriscience, Business Management, and Learning Disabilities. Only 7.9% of participants selected a field in Special Education. Michigan districts often use an inclusion model with special and general education students occupying the same classroom.

Out of the 56 ISD/ESA regional support districts in Michigan, responses were collected from thirteen. These ISD/ESA districts stretched across Michigan. Most responses came from Michigan's Upper Peninsula with 49.9% reported. The second most represented region was Southwest lower Michigan with 21%. Other regions in Michigan held lower percentages, due to one ISD/ESA representing the entire region –

Livingston County 13.1% and Saginaw County at 7.9%. Other geographic areas of responses include one ISD from southeast lower Michigan and one from northwest lower Michigan.

Responses generally came from small (151-1000 students) districts or very small districts (<150 students) -- 43.2% and 9.1% respectively. Mid-size districts (1001-3000 students) accounted for 22.7% of the respondents. Large districts (3001-9999 students) provided 18.2% of the responses with very large districts (>10,000 students) providing 4.6% of the responses. Less than three percent of the responses indicated that their previous evaluation was performed for providing support to multiple districts.

3.2 Components in the Classroom

When asked if the ten FARROP dimensions played a strong role in the formative assessment taking place in the classrooms where respondents held influence, over 90% of classroom teachers responded, “somewhat agree” or “strongly agree” to the two components of:

- Tasks and Activities that Elicit Evidence of Student Learning
- Learning Goals

Two components had less than 70% in agreement:

- Descriptive Feedback
- Peer Feedback

Building administrators, central office/district level administrators, and other educators replied as “somewhat agree” or “strongly agree” for all ten components. ISD/ESA staff members had seven components with 100% agreement. Of the responses, three components showed a split between agreement and disagreement

- Extending Thinking During Discourse,
- Peer Feedback, and
- Self-Assessment.

Appendix B displays the responses to the ten components by educator role.

Table 2 shows respondent's content area and those selecting "somewhat agree" or "strongly agree" with the use of the components of formative assessment in the classes with which they have influence. Core content areas and special education all showed 100% agreement for the component of Tasks and Activities that Elicit Evidence of Student Learning. Educators in the content areas of Science, Social Science, Mathematics, and Special Education also selected agreement on the component of Learning Goals. Special Education, Mathematics, and Science educators further shared agreement for two components:

- Questioning Strategies that Elicit Evidence of Student Learning and
- Use of Evidence to Inform Instruction components.

Component	English Language Arts Endorsements (n=16)		Social Sciences Endorsements (n=3)		Science Endorsements (n=1)		Mathematics Endorsements (n=4)		Special Education Endorsements (n=2)	
	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree
Learning Goals	18.75%	68.75%	33.33%	66.67%	0.00%	100.00%	50.00%	50.00%	50.00%	50.00%
Criteria or Success	56.25%	37.50%	33.33%	33.33%	0.00%	100.00%	0.00%	75.00%	50.00%	50.00%
Tasks and Activities that Elicit Evidence of Student Learning	37.50%	62.50%	33.33%	66.67%	100.00%	0.00%	50.00%	50.00%	100.00%	0.00%
Questioning Strategies that Elicit Evidence of Student Learning	31.25%	56.25%	0.00%	66.67%	0.00%	100.00%	75.00%	25.00%	50.00%	50.00%
Extending Thinking During Discourse	31.25%	37.50%	0.00%	100.00%	100.00%	0.00%	50.00%	25.00%	50.00%	0.00%
Descriptive Feedback	25.00%	43.75%	33.33%	33.33%	0.00%	100.00%	75.00%	0.00%	50.00%	50.00%
Peer Feedback	37.50%	37.50%	0.00%	66.67%	100.00%	0.00%	50.00%	25.00%	0.00%	0.00%
Self-Assessment	37.50%	56.25%	0.00%	66.67%	0.00%	100.00%	50.00%	0.00%	50.00%	0.00%
Collaborative Culture of Learning	25.00%	68.75%	0.00%	66.67%	0.00%	100.00%	25.00%	25.00%	100.00%	0.00%
Use of Evidence to Inform Instruction	25.00%	62.50%	0.00%	66.67%	0.00%	100.00%	25.00%	75.00%	50.00%	50.00%

Overall, responses generally came from two regions of Michigan: Michigan’s Upper Peninsula, and Michigan’s Southwest Lower Peninsula. These regions made up 70% of the Regional Support Centers (ISD/ESA) reporting responses. Although not all the ISD/ESAs in these regions recorded responses, these regions had multiple ISD/ESAs respond where other regions only had one ISD/ESA represented.

The Upper Peninsula ISD/ESAs had the most agreement around four of the components:

- Tasks and Activities that Elicit Evidence of Student Learning,

- Questioning Strategies that Elicit Evidence of Student Learning,
- Descriptive Feedback, and
- Use of Evidence to Inform Instruction.

This implies that educators use these four components vastly in their practice. The Upper Peninsula respondents had least agreement on the component of Learning Targets as a part of formative assessment being used in the classrooms.

Southwest Lower Michigan educators had three components that showed the highest levels of agreement:

- Learning Goals,
- Tasks and Activities that Elicit Evidence of Student Learning, and
- Collaborative Culture of Learning.

Educators in this region and in Michigan's Upper Peninsula shared agreement on the component of Tasks and Activities that Elicit Evidence of Student Learning. Where the Upper Peninsula educators had one area with the lowest level of agreement, the Southwest Lower Michigan educators had three areas that were low in agreement. These three areas were

- Questioning Strategies that Elicit Evidence of Student Learning,
- Extending Thinking During Discourse, and
- Descriptive Feedback.

Table 3 outlines the responses for all responses from two regions in Michigan:

Michigan's Upper Peninsula, and Southwest Lower Michigan.

Component	Strongly disagree		Somewhat disagree		disagree		Somewhat agree		Strongly agree	
	Michigan's Upper Peninsula (n=11)	Southwest Michigan (n=5)	Michigan's Upper Peninsula (n=11)	Southwest Michigan (n=5)	Michigan's Upper Peninsula (n=11)	Southwest Michigan (n=5)	Michigan's Upper Peninsula (n=11)	Southwest Michigan (n=5)	Michigan's Upper Peninsula (n=11)	Southwest Michigan (n=5)
Learning Goals	9.09%	0.00%	0.00%	0.00%	9.09%	0.00%	18.18%	40.00%	63.64%	60.00%
Criteria or Success	0.00%	0.00%	0.00%	0.00%	9.09%	20.00%	36.36%	20.00%	54.55%	60.00%
Tasks and Activities that Elicit Evidence of Student Learning	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	63.64%	40.00%	36.36%	60.00%
Questioning Strategies that Elicit Evidence of Student Learning	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	27.27%	20.00%	72.73%	40.00%
Extending Thinking During Discourse	0.00%	0.00%	9.09%	0.00%	18.18%	40.00%	45.45%	0.00%	27.27%	60.00%
Descriptive Feedback	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	63.64%	20.00%	36.36%	40.00%
Peer Feedback	0.00%	0.00%	18.18%	20.00%	9.09%	0.00%	27.27%	40.00%	45.45%	40.00%
Self-Assessment	0.00%	0.00%	9.09%	0.00%	9.09%	20.00%	45.45%	20.00%	36.36%	60.00%
Collaborative Culture of Learning	0.00%	0.00%	0.00%	0.00%	9.09%	0.00%	45.45%	20.00%	45.45%	80.00%
Use of Evidence to Inform Instruction	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	36.36%	20.00%	63.64%	60.00%

3.3 Confidence in Component Skill

In addition to the use of the components, respondents were asked to indicate their level of confidence in their skill to use the components. When reviewing the responses by position type, the only position that showed variance in responses was the Classroom Teachers. All other educator categories (Building Administrator, Central Office/District Level Administrator, ISD/ESA Staff Member, and Other Educator) posted 100% of responses answering, “somewhat agree” or “strongly agree”. The spread of confidence in their skill for the components among Classroom Teachers was rather broad with the lowest level being in the component of Extending Thinking During Discourse. The next

lowest confidence levels were recorded in the components of Descriptive Feedback and Peer Feedback. None of the formative assessment components showed all classroom teachers being confident in their skill. Table 4 further outlines the responses of classroom teachers.

Component	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Learning Goals	0.00%	4.35%	4.35%	30.43%	60.87%
Criteria or Success	0.00%	4.35%	4.35%	47.83%	43.48%
Tasks and Activities that Elicit Evidence of Student Learning	0.00%	0.00%	4.35%	60.87%	34.78%
Questioning Strategies that Elicit Evidence of Student Learning	0.00%	4.35%	17.39%	43.48%	34.78%
Extending Thinking During Discourse	0.00%	17.39%	21.74%	39.13%	21.74%
Descriptive Feedback	0.00%	13.04%	13.04%	43.48%	30.43%
Peer Feedback	4.35%	13.04%	8.70%	52.17%	21.74%
Self-Assessment	0.00%	4.55%	4.55%	63.64%	27.27%
Collaborative Culture of Learning	4.35%	4.35%	8.70%	43.48%	39.13%
Use of Evidence to Inform Instruction	0.00%	4.35%	4.35%	43.48%	47.83%

When reviewing responses to confidence by content area, it is apparent that ELA content educators had the most amount of discrepancy around agreement on the components. However, educators in the content of ELA reported the most agreement in the component of Use of Evidence to Inform Instruction. This component also showed agreement by all educators in the content areas of Science and Mathematics. Social Science, Science, Mathematics, and Special Education educators all reached agreement in additional components of Learning Goals and Tasks and Activities that Elicit Evidence of Student Learning. These components also had over 90% of ELA educators agreeing in their skills being strong. This may be informative to future work or planning for professional learning pathways by content areas.

The two components of Descriptive Feedback and Peer Feedback only had one content area (Special Education) where educators responded with agreement. In addition to only having one content area of 100% agreement, these two components had the lowest level of agreement when looking across all content areas. Another component that showed a low level of agreement when crossing content area was Extending Thinking During Discourse. Table 5 shows a breakdown of the levels of agreement by content area of responders on their skill for the component.

Component	English Language Arts Endorsements (n=16)		Social Sciences Endorsements (n=3)		Science Endorsements (n=1)		Mathematics Endorsements (n=4)		Special Education Endorsements (n=2)	
	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree
Learning Goals	25.00%	62.50%	66.67%	33.33%	0.00%	100.00%	25.00%	75.00%	0.00%	100.00%
Criteria for Success	43.75%	50.00%	33.33%	33.33%	100.00%	0.00%	50.00%	50.00%	0.00%	100.00%
Tasks and Activities that Elicit Evidence of Student Learning	50.00%	43.75%	33.33%	66.67%	0.00%	100.00%	75.00%	25.00%	50.00%	50.00%
Questioning Strategies that Elicit Evidence of Student Learning	50.00%	37.50%	66.67%	33.33%	0.00%	100.00%	25.00%	25.00%	0.00%	100.00%
Extending Thinking During Discourse	18.75%	37.50%	100.00%	0.00%	0.00%	0.00%	75.00%	0.00%	100.00%	0.00%
Descriptive Feedback	37.50%	43.75%	33.33%	33.33%	0.00%	0.00%	50.00%	25.00%	0.00%	100.00%
Peer Feedback	37.50%	43.75%	66.67%	0.00%	0.00%	0.00%	75.00%	0.00%	100.00%	0.00%
Self-Assessment	43.75%	43.75%	33.33%	33.33%	0.00%	100.00%	100.00%	0.00%	100.00%	0.00%
Collaborative Culture of Learning	25.00%	62.50%	0.00%	66.67%	100.00%	0.00%	75.00%	0.00%	100.00%	0.00%
Use of Evidence to Inform Instruction	50.00%	50.00%	0.00%	66.67%	0.00%	100.00%	50.00%	50.00%	0.00%	50.00%

When reviewing the two regions in Michigan with the most educator responses, the agreement levels appear highest in the component of Tasks and Activities that Elicit Evidence of Student Learning. Regarding agreement on level of skill, Southwest Lower Michigan educators had more components where levels of agreement were higher than those educators in Michigan’s Upper Peninsula. Among both regions, in general, the components with the lowest overall level of agreement were Extending Thinking During Discourse, Peer Feedback, and Descriptive Feedback.

3.4 Component Support

Educators were also asked for their perception of support from their administration (leadership) with implementing the components of formative assessment in the classrooms for which they have influence. Building Administrators and Central Office/District Level Administrators had 100% of responses selecting either “somewhat agree” or “strongly agree” for all components. When reviewing responses from both classroom teachers and ISD/ESA staff members, three components appeared to have low levels of perceived support from administrators: 1. Questioning Strategies that Elicit Evidence of Student Learning, 2. Extending Thinking During Discourse, and 3. Peer Feedback. Responses show that less than half of the staff members felt that their administration supported their use of and advancement in these components. Table 6 shows the responses from classroom teachers and ISD/ESA staff members for perceived support by administrators for the use of the components. The components of Collaborative Culture of Learning had the most responses selecting “somewhat agree” or “strongly agree”. For years, Michigan educators have been provided statewide supports around school and classroom climate and culture; therefore, this level of response is not overly surprising.

Component	Classroom Teachers (n=23) and ISD/ESA Staff Members (n=2) Combined Responses				
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Learning Goals	4.00%	8.00%	16.00%	28.00%	44.00%
Criteria for Success	0.00%	8.00%	12.00%	40.00%	40.00%
Tasks and Activities that Elicit Evidence of Student Learning	0.00%	12.00%	12.00%	36.00%	40.00%
Questioning Strategies that Elicit Evidence of Student Learning	4.00%	16.00%	16.00%	24.00%	40.00%
Extending Thinking During Discourse	4.00%	12.00%	12.00%	40.00%	32.00%
Descriptive Feedback	4.00%	4.00%	16.00%	36.00%	40.00%
Peer Feedback	4.00%	12.00%	28.00%	24.00%	32.00%
Self-Assessment	4.00%	4.00%	4.00%	52.00%	32.00%
Collaborative Culture of Learning	4.00%	4.00%	8.00%	40.00%	44.00%
Use of Evidence to Inform Instruction	4.00%	4.00%	12.00%	32.00%	48.00%

Perceived support for the use and advancement of skills in the components varied by content area. With a low number of responses, the perceived support was reviewed across all content area of respondents (Social Science (n=3), Science (n=1), ELA (n=16), Mathematics (n=4), and Special Education (n=2)). The components of Criteria for

Success and Collaborative Culture of Learning had the highest number of educators responding, “somewhat agree” or “strongly agree”. Educators felt that Peer Feedback and Questioning Strategies that Elicit Evidence of Learning held the lowest levels of administrative support for implementation in the classroom.

Responses from the two geographic regions in Michigan with the most responses [Michigan’s Upper Peninsula (n=11) and Southwest Lower Michigan (n=5)] showed differences in their perception of support for use and advancement of professional skill in the formative assessment components. Michigan’s Upper Peninsula had no components where all educators selected “somewhat agree” or “strongly agree”. Educators in Southwest Lower Michigan had six of the ten components where all educators selected either “somewhat agree” or “strongly agree”. These six components were: 1. Learning Goals, 2. Criteria for Success, 3. Tasks and Activities that Elicit Evidence of Student Learning, 4. Self-Assessment, 5. Collaborative Culture of Learning, and 6. Use of Evidence to Inform Instruction. When reviewing responses from both regions, the component of Peer Feedback appears to be the component resulting in the lowest level of perception for support by administrators/leaders for use in the classroom. This component also was low when reviewing the educator confidence in these two regions of Michigan.

3.5 Definition Agreement

A definition for formative assessment was provided in the survey asking for a level of agreement. The definition provided was:

Formative assessment is a planned, ongoing process used by all students and teachers during learning and teaching to elicit and use evidence of

student learning to improve student understanding of intended disciplinary learning outcomes and support students to become more self-directed learners. Effective use of the formative assessment process requires students and teachers to integrate and embed the following practices in a collaborative and respectful classroom environment: clarifying learning goals within a broader progression of learning; eliciting and analyzing evidence of student thinking; engaging in self-assessment and peer feedback; providing actionable feedback; and using evidence and feedback to move learning forward by adjusting learning strategies, goals or next instructional steps (Wylie & Lyon, 2016)

Over 85% of responding educators selected the criteria of “somewhat agree” or “strongly agree” with the definition, and slightly over 10% of educators selected “somewhat disagree” or “strongly disagree” to the presented definition. Educators in the role of classroom teachers accounted for all the responses around disagreement. All other educators (building administrators, central office/district level administration, ISD/ESA staff member, and other educators) all replied with 100% “strongly agree”.

CHAPTER FOUR: DISCUSSION

4.1 Limitations

This study was conducted during the start of an academic calendar year in Michigan – last two weeks of September – with the survey being distributed through email and social media platforms. The time of year and the timeline for completion may have been a factor in the low number of responses (n=44). A survey at such time of the academic year may be perceived as demanding and time consuming by educators who are working to build and enhance a culture of learning in their classrooms, buildings, and districts. Drawing conclusions on such a small number of responses is difficult, but this study can still be useful in designing future work and studies around the formative assessment components in Michigan. Future work will need to provide for a larger window of time to collect survey responses. Additionally, work may want to include additional collaboration with professional organizations, including educator union leadership, so that responding educators can see the value in completing the survey.

The responses collected build a baseline understanding of how some educators feel about the components of formative assessment; how these relate to geographic region and professional position; and the agreement level from Michigan educators on the definition of formative assessment. With that said, future work will need to collect perceptions on the formative components and perhaps qualitative input by region and position to design professional learning that is specific to educator needs on formative assessment use.

4.2 Demographic Discussion

With the responses being “close to the classroom” and most respondents being classroom teachers, this study can be used to assist with connecting teachers understanding to that of the other educators. This connection will help drive discussion around district, ISD/ESA, or regional goal setting for the use of the components of formative assessment in the classroom. Administrators (building and central office) and ISD/ESA staff can use results as a starting point to build discussion in their districts in order to find an “entry point” for professional learning on the components of formative assessment get quick gains in the use of formative assessment and set long term training plans to assist educators with building a deeper understanding of using student thinking to set the classroom pathway for instruction. This planning can assist with building the confidence in use of the components and the perceived support for educators.

The distribution of educator certification indicates that respondents (over 84%) had over five years of experience in the classroom, or education setting. Administrators may use responses to work with veteran staff to provide a flow-through/mentorship program for supporting the use of, building confidence in, and increasing the perception of support for the components in their classroom. This type of a program can help to bridge the misconceptions, disagreement for the components, and support the integration of these components into the instructional process for classrooms. Additionally, through the mentorship programs, veteran teachers will be able to collaborate with novice teachers possibly resulting in better enhanced formative tasks incorporating multiple components and closing the gap between what students know and where they need to be.

The respondents in this study were largely elementary ELA educators. This is not surprising because of the focus on literacy in early grades currently taking place in Michigan. Educators in this content area are often attending high levels of training, experience increased instructional support, and are accustomed to being contacted for information around their instructional practices. Therefore, Michigan administrators may use this study to enhance mentorships that are cross-content and grade-level to assist with confidence levels and support perception around the formative components. By exploiting the training and confidence previously developed in early literacy educators, a mentorship program including these educators may help other content area experts to feel more supported in their efforts.

Overall, the distribution of district size was not surprising. In general, Michigan has several districts less than 10,000 students. In the responding regions (greatly Michigan's Upper Peninsula), districts are mid-size to very small. Although the district size was comparable to that in the state, further research may need to be done regarding the perception of formative practices in large district, small districts, and regarding district level funds support professional learning and growth. There may be need to identify the equity distribution of the components to students in districts with low levels of fund equity to those with higher levels and in turn more funds for resources; or to those in large urban settings versus small rural.

4.3 Component Findings

Although it is difficult to draw strong conclusions with a small sampling of educators, this study found that responses indicated that educators felt that they use the components of formative assessment in their classrooms. However, educators did

indicate that they felt that skill and support could be enhanced to strengthen some of the components. Areas where they feel the most need for support and skill enhancement seemed to be similar between content area and geographic region. However, further investigation will be needed in order to refine supports and build a better understanding of educator perception. The components of Descriptive Feedback, Peer Feedback, and Extending Thinking During Discourse can be a starting point for strengthening educator practice.

Furthermore, future investigations may want to review areas where educators expressed the highest levels of confidence – Use of Evidence to Inform Instruction, Criteria for Success, and Learning Goals. A review of these components may result in the ability to refine professional learning, build collaborative adult learning environments, and showcase areas of best practice. By following this practice, educators may be able to bring the components of formative assessment into the forefront of educator planning and practice.

4.4 Definition of Formative Assessment

Educators have many definitions and a varied understanding of formative assessment, but it may be more important to bring forward the practices than to gain full agreement on the definition (William & Leahy, 2015). With that said, it is important to understand the viewpoints of definitions for the practices in order to know how to build and enhance practices. It is encouraging that many educators held agreement with the presented definition of formative assessment. However, with all of the responses that were in disagreement coming from classroom teachers, future work will want to identify what caused the disagreement and find if that is a barrier to practice. It will be important

to work to build connections between the understanding of formative assessment between the classroom teachers and the administrators to ensure that there is common language and practice.

Conclusion and Next Steps

Formative assessment is a complex practice that is accompanied with broad perceptions from the field. This study helps to build a broad understanding of Michigan educator's perception of components of formative assessment. With these results, additional studies can be planned to investigate the perceived use, skill, and support around the components. Although formative assessment can be used in all content areas and with all students, this study can help to design professional learning to bring all ten components forward in all grade levels and content areas. With further investigation, Michigan educators can design professional learning and collaborative programs to help teachers step out of their comfort zone, strengthen skill sets, and, in turn, enhance student engagement and learning.

This study can benefit regional and district administrators for planning for future professional learning. Many of the responses in this survey come from areas that have provided professional learning on some of the components that were identified by Wylie and Lyon (2016). Educational leaders may wish to investigate historical, regionally provided, professional learning around these components and use the results from this study to enhance educator understanding of formative assessment. It may be beneficial to bring attention to how educators have already been increasing their skill and understanding around some of the components of formative assessment and "quick gains" can be made by strengthening additional components. This may also help

educators to understand that Formative Assessment is not “one more thing” but instead something that is a part of their practice and current instruction.

Future studies may wish to gain a more in depth understanding of educator perception around the components. Researchers may want to work with ISD/ESA staff to collect information around previous trainings focused on the components. Also, they may wish to collect more qualitative data that can assist with building an understanding of educator perception on their use, skill, and support for the components. It may benefit future studies to collect information around the reason why some classroom teachers didn't agree with the proposed definition. It would be interesting to identify a correlation between years of experience and level of agreement on the definition. Additionally, future work may want to review educator perception of Formative Assessment and Technology Integration, or Computer Adaptive Testing.

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APPENDIX A

Survey Questions

The following questions will assist with identifying themes in participants of the survey. Participants will not be identified individually, nor at the building or district level. All participants are encouraged to answer the questions to the best of their knowledge and with regard to the last educator evaluation that they received -- possibly previous year.

1. What position did you hold during your most recent evaluation?
2. What type of certificate was held referring to your last evaluation?
3. What was the primary grade-level for which you were last evaluated? (Please select only one)
4. Choose the code that best describes the primary teaching area or supportive role connected to your most recent evaluation.
5. In which ISD/ESA is your primary work associated?
6. What is the approximate size of the district in which your last evaluation was performed

The following questions will assist with building an understanding of the use and background knowledge of Formative Assessment practices in Michigan education. Please review the questions built on your current understanding of Formative Assessment in the classroom. Dimensions listed in these questions are taken from "Using the Formative Assessment Rubrics, Reflection and Observation Tools to Support Professional Reflection on Practice" (Wylie, C. and Lyon, C, 2013).

1. Please rank each of the following on a scale of 1 (strongly disagree) to 5 (strongly agree) with regard to the statement: This dimension plays a strong role with regard to formative assessment within the classrooms in which I have influence.
 - a. Learning Goals
 - b. Criteria for Success
 - c. Tasks and Activities that Elicit Evidence of Student Learning
 - d. Questioning Strategies that Elicit Evidence of Student Learning
 - e. Extending Thinking During Discourse
 - f. Descriptive Feedback
 - g. Peer Feedback
 - h. Self-Assessment
 - i. Collaborative Culture of Learning
 - j. Use of Evidence to Inform Instruction

2. Please rank each of the following on a scale of 1 (strongly disagree) to 5 (strongly agree) with regard to the statement: I feel confident in my skillset to openly use and enhance this dimension in my practices with students or assist adults with using this dimension with students.
 - a. Learning Goals
 - b. Criteria for Success
 - c. Tasks and Activities that Elicit Evidence of Student Learning
 - d. Questioning Strategies that Elicit Evidence of Student Learning
 - e. Extending Thinking During Discourse
 - f. Descriptive Feedback

- g. Peer Feedback
 - h. Self-Assessment
 - i. Collaborative Culture of Learning
 - j. Use of Evidence to Inform Instruction
3. Please rank each of the following on a scale of 1 (strongly disagree) to 5 (strongly agree) with regard to the statement: I feel supported by my administration to use and advance my understanding of this dimension in my practices.
- a. Learning Goals
 - b. Criteria for Success
 - c. Tasks and Activities that Elicit Evidence of Student Learning
 - d. Questioning Strategies that Elicit Evidence of Student Learning
 - e. Extending Thinking During Discourse
 - f. Descriptive Feedback
 - g. Peer Feedback
 - h. Self-Assessment
 - i. Collaborative Culture of Learning
 - j. Use of Evidence to Inform Instruction
4. The following is a definition of Formative Assessments as adopted by the Formative Assessment for Students and Teachers (FAST) group of the State Collaboratives on Assessment and Student Standards (SCASS) of the Council of Chief State School Officers (CCSSO). Please rank on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree) of your agreement with this proposed definition.

- a. Formative assessment is a planned, ongoing process used by all students and teachers during learning and teaching to elicit and use evidence of student learning to improve student understanding of intended disciplinary learning outcomes and support students to become more self-directed learners. Effective use of the formative assessment process requires students and teachers to integrate and embed the following practices in a collaborative and respectful classroom environment: clarifying learning goals within a broader progression of learning; eliciting and analyzing evidence of student thinking; engaging in self-assessment and peer feedback; providing actionable feedback; and using evidence and feedback to move learning forward by adjusting learning strategies, goals or next instructional steps.
5. The following is a definition of Formative Assessments as adopted by the Formative Assessment for Students and Teachers (FAST) group of the State Collaboratives on Assessment and Student Standards (SCASS) of the Council of Chief State School Officers (CCSSO). Please rank on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree) of how this assessment aligns with the definition of Formative Assessment in your educational environment.
- a. Formative assessment is a planned, ongoing process used by all students and teachers during learning and teaching to elicit and use evidence of student learning to improve student understanding of intended disciplinary learning outcomes and support students to become more self-directed learners. Effective use of the formative assessment process requires

students and teachers to integrate and embed the following practices in a collaborative and respectful classroom environment: clarifying learning goals within a broader progression of learning; eliciting and analyzing evidence of student thinking; engaging in self-assessment and peer feedback; providing actionable feedback; and using evidence and feedback to move learning forward by adjusting learning strategies, goals or next instructional steps.

APPENDIX B

Appendix B																									
Educator Responses to the Use of Formative Assessment Components																									
Component	Strongly disagree					Somewhat disagree					Neither agree nor disagree					Somewhat agree					Strongly agree				
	Classroom Teacher (n=23)	Building Administrator (n=1)	Central Office/District Administrator (n=1)	ISD/ESA Member (n=2)	Other Educator (n=1)	Classroom Teacher (n=23)	Building Administrator (n=1)	Central Office/District Administrator (n=1)	ISD/ESA Member (n=2)	Other Educator (n=1)	Classroom Teacher (n=23)	Building Administrator (n=1)	Central Office/District Administrator (n=1)	ISD/ESA Member (n=2)	Other Educator (n=1)	Classroom Teacher (n=23)	Building Administrator (n=1)	Central Office/District Administrator (n=1)	ISD/ESA Member (n=2)	Other Educator (n=1)	Classroom Teacher (n=23)	Building Administrator (n=1)	Central Office/District Administrator (n=1)	ISD/ESA Member (n=2)	Other Educator (n=1)
Learning Goals	4.35%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.35%	0.00%	0.00%	0.00%	0.00%	30.43%	0.00%	0.00%	0.00%	0.00%	60.87%	100.00%	100.00%	100.00%	100.00%
Criteria or Success	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.04%	0.00%	0.00%	0.00%	0.00%	47.83%	0.00%	0.00%	0.00%	0.00%	39.13%	100.00%	100.00%	100.00%	100.00%
Tasks and Activities that Elicit Evidence of Student Learning	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	47.83%	0.00%	0.00%	50.00%	0.00%	52.17%	100.00%	100.00%	50.00%	100.00%
Questioning Strategies that Elicit Evidence of Student Learning	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.04%	0.00%	0.00%	0.00%	0.00%	39.13%	0.00%	0.00%	0.00%	0.00%	47.83%	100.00%	100.00%	100.00%	100.00%
Extending Thinking During Discourse	0.00%	0.00%	0.00%	0.00%	0.00%	4.35%	0.00%	0.00%	50.00%	0.00%	21.74%	0.00%	0.00%	0.00%	0.00%	43.48%	0.00%	0.00%	0.00%	0.00%	30.43%	100.00%	100.00%	50.00%	100.00%
Descriptive Feedback	4.35%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	26.09%	0.00%	0.00%	0.00%	0.00%	43.48%	0.00%	0.00%	0.00%	0.00%	26.09%	100.00%	100.00%	100.00%	100.00%
Peer Feedback	4.35%	0.00%	0.00%	0.00%	0.00%	8.70%	0.00%	0.00%	50.00%	0.00%	21.74%	0.00%	0.00%	0.00%	0.00%	39.13%	0.00%	0.00%	0.00%	0.00%	26.09%	100.00%	100.00%	50.00%	100.00%
Self-Assessment	0.00%	0.00%	0.00%	0.00%	0.00%	4.35%	0.00%	0.00%	50.00%	0.00%	13.04%	0.00%	0.00%	0.00%	0.00%	43.48%	0.00%	0.00%	0.00%	0.00%	39.13%	100.00%	100.00%	50.00%	100.00%
Collaborative Culture of Learning	0.00%	0.00%	0.00%	0.00%	0.00%	4.35%	0.00%	0.00%	0.00%	0.00%	13.04%	0.00%	0.00%	0.00%	0.00%	30.43%	0.00%	0.00%	50.00%	0.00%	52.17%	100.00%	100.00%	50.00%	100.00%
Use of Evidence to Inform Instruction	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.04%	0.00%	0.00%	0.00%	0.00%	30.43%	0.00%	0.00%	0.00%	0.00%	56.52%	100.00%	100.00%	100.00%	100.00%

APPENDIX C

Approval Notice for Human Subject Research

Memorandum

TO: Victor Bugni
School of Education, Leadership, and Public Service

CC: Joe Lubig
School of Education, Leadership, and Public Service

FROM: Dr. Robert Winn
Interim Dean of Arts and Sciences/IRB Administrator

DATE: September 7, 2017

SUBJECT: IRB Proposal HS17-874
“The understanding of formative assessment process by Michigan educators”
IRB Approval Dates: 9/7/2017 – 9/7/2018
Proposed Project Dates: 9/6/2017 – 9/22/2017

Your proposal “The understanding of formative assessment process by Michigan educators” has been approved under the administrative review process. Please include your proposal number (HS17-874) on all research materials and on any correspondence regarding this project.

Any changes or revisions to your approved research plan must be approved by the Institutional Review Board (IRB) prior to implementation.

If you do not complete your project within 12 months from the date of your approval notification, you must submit a Project Renewal Form for Research Involving Human Subjects. You may apply for a one-year project renewal up to four times.

All forms can be found at the NMU Grants and Research website: <http://www.nmu.edu/grantsandresearch/node/102>