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“Multimodal Assessment for learning to Reinforce Global-Oriented Competences in Hybrid Inclusive Classrooms”

By: Fatma Ahmed Ibrahim Attaalla

Senior EFL Teacher in Al Azhar

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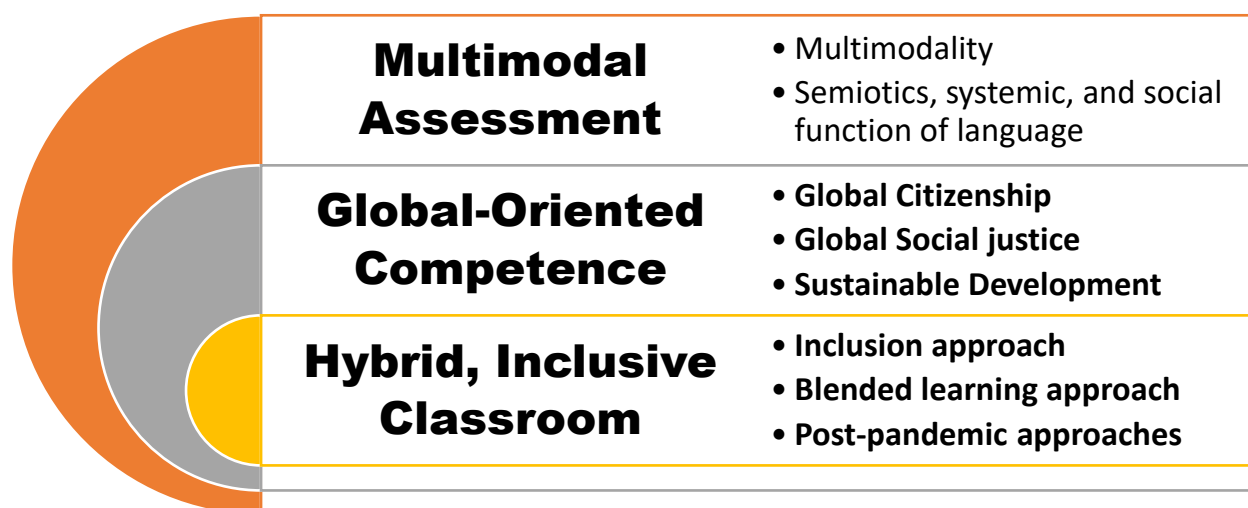
Fatma Ahmed Ibrahim Attaalla

yumnafatehi73@gmail.com

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Abstract

This study introduces a multi-sphered conceptual framework to explore and discuss dynamic form of assessment, innovative relations and streamlining data on global-oriented competences.



Introduction

Changes forced by the massive flow of Information technology (IT), the changing pedagogical landscape being impacted with the fast rhythm pedagogical researches, and moreover the global events shaping national people’s daily life, all accelerates looking up for new ways of instructional assessment. These changes impose the question what has changed and requires inventing new, different ways of pedagogical assessment of learning.

The lockdown of COVID19 has changed the context of delivering teaching and consequently the methods of assessing teaching and learning processes. Accompanied with the immense educational technology developments, COVID19 lockdown has led to the rise of competitive digital learning and teaching platforms, applications for assessment of learning process progress. However, COVID19 lockdown has had a different impact as it gets students as users of social

media platforms (e.g., Twitter, Facebook, Pinterest and Instagram) spend longer time using social media, get closer to global peers and influenced their social awareness of global issues.

To add, the growing impact of global issues such as climate change has got the social media users amongst whom are students to become more involved in sharing and re-sharing posts on climate change. This diversion towards global issues has proven that social media users including students are engaged in global citizenship skills.

The shift from traditional literacy into multimodal literacy, critical literacy, information literacy and digital literacy requires shift of assessment of teaching and learning. On the other hand, the positive results of hybrid classroom that combine the strategies of face-to-face and digital-based instructional processes make it necessary to shift into assessment for learning in hybrid, inclusive classroom.

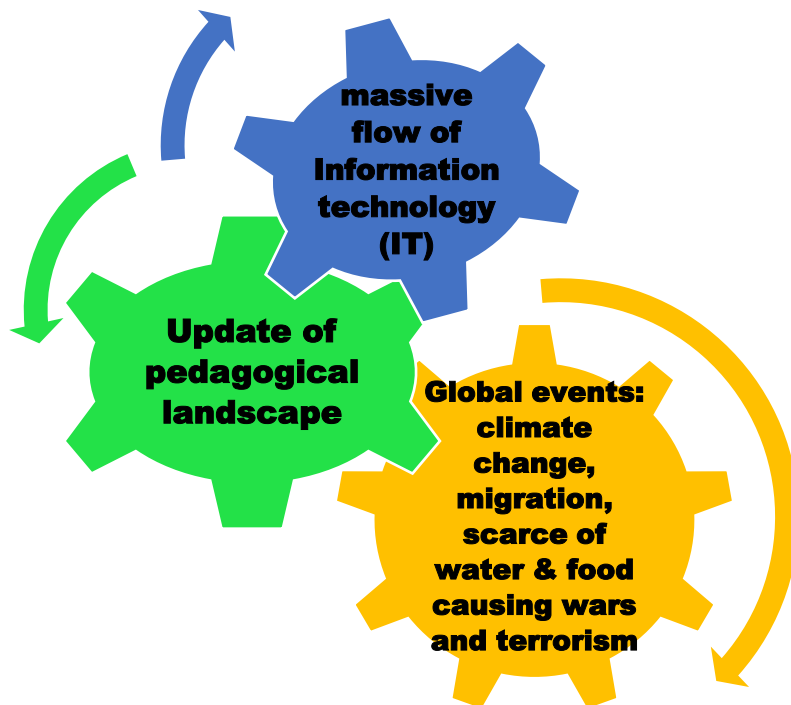


Figure 1 Factors behind re-imagining pedagogical assessment

Hybrid, inclusive classroom including students with diverse learning styles requires using multimodality assessment to check and review students' competence to produce multi modes of text: audio, visual, kinetic, etc.

Thus, this paper discusses the assessment for learning, multimodality, Global oriented Competences and hybrid classroom, inclusive classroom. The paper suggests using multimodal assessment for learning (MAFL) to reinforce/enhance Global-oriented competence in hybrid, inclusive classroom.

Aims and objectives of the study

The aim of the study is to explore assessment for hybrid learning (face to face and virtually), and investigate the effectiveness of inclusive assessment for learning to promote students' learning skills of global citizenship, social justice & sustainability skills in hybrid Classroom.

Two basic objectives are tackled by the study that can be stated as follows:

- To explore principles and strategies of inclusive, alternative assessment for learning in a hybrid classroom
- To investigate in what way assessment can promote learning skills of global citizenship, global social justice and sustainability

Questions of the Study

The study reviews relevant literature to answers the following questions:

- 1- What and why are the concepts and strategies of "assessment for learning" in a hybrid classroom?
- 2- What are the characteristics of the skills and content to be assessed in a hybrid classroom?
- 3- How to assess learning skills of global citizenship, social justice and sustainability in a hybrid classroom!

Problem Statement of the Study

The study states that the contemporary formative and summative assessment of learning is unable to achieve good learning outcomes in ever-changing global educational landscape.

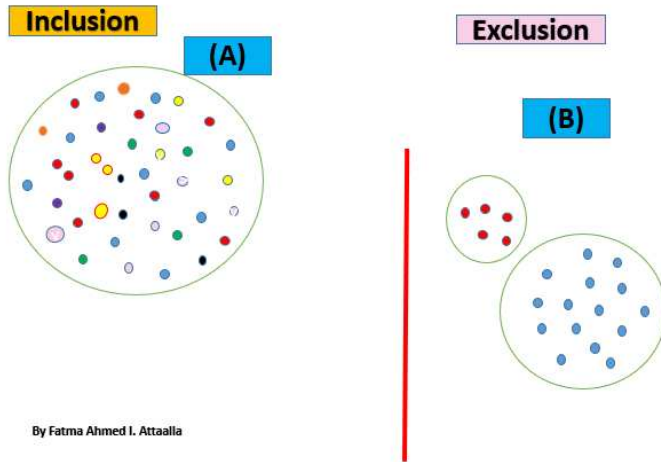
Literature Review

a) Inclusive classroom:

The study suggests that the context for implementing Multimodal Assessment for Learning (MAFL) can be inclusive, hybrid classrooms. However, inclusiveness of the classroom can imply different dimensions including: (1) inclusive learning environment for all students (2) inclusion of diverse teaching styles and (3) inclusion of varied modes of texts, and (3) inclusion of global issues to help promote students with global-oriented competence.

Why inclusive Classroom

“One of the most emphasized views in inclusion is to enhance children’s participation in their own community”, (Lakkala & Määttä, 2011). Fostering inclusion view in the classroom can help resolve problems of learners’ participation and feedback students’ progress and support students’ intercultural relationships. Inclusive classroom can be defined as a classroom that allows all students with or without differences to be included in the activities of the classroom, whatever their label or learning style is. Inclusive classrooms are argued to “increase student engagement for all students” (Webster, 2014), foster students’ sense of belonging, and provide equal opportunities of learning and interaction. Besides, inclusive classrooms can respect diversity of students in a warm welcoming way regardless of their cultural background and can improve skills of team-work, partnership, effective communication.



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Figure 2 Inclusion vs. exclusion concepts of classroom

Inclusion is maintained to be “a process of enriching ideological and conceptual approaches regarding integration”, (Fernández & Darreche, 2010). Besides, inclusion is argued to “encourage a more tolerant culture”, (Fernández & Darreche, 2010), that appreciates diverse social and cultural background and foster equality and respect values among students to support changes that promote equality among students, respect differences, facilitate the participation of parents and the incorporation of students in the learning process”. It is confirmed that inclusive classroom “aspires to the progress of all students in respect to heterogeneity, co-education, inter-culturalism and relativity and interactivity of educational needs”, (Fernández & Darreche, 2010).

Inclusive classroom can offer opportunities to integrate the classroom context to the ecosystem as a wider place where students can have a sense of belonging to the surrounding environment. Fernández and Darreche (2010) explain that “The interaction between the person and their context is fundamental in the comprehension of the people and their conducts”.

Inclusion of classroom for assessing global competences implicates getting students to interact with ecological and global issues relevant to their glogical communities and their global society. It is argued that the classroom is a macro world connected to the realities outside the wall of schools. Thus, Multimodal Assessment for Learning (MAFL) in inclusive classrooms can foster students' awareness of issues relevant to their daily life and can transform them to become global citizens sharing transforming their own societies for better.

To measure students' progress in inclusive, hybrid classroom requires to rethink assessment tools and strategies. First of all, teachers need to define what to be measured in hybrid, inclusive classroom, accordingly selecting the appropriate assessment tools and strategies. In inclusive, hybrid classroom, students can promote knowledge, skills, attitudes, competencies to be global citizens, responsible for their own societies, and can share advocating the environmental and social justice of the vulnerable.

The approach of global citizenship, social justice and sustainability education is deeply connected to interdisciplinary approach, multicultural and intercultural approach and multimodality. The three approaches applications can help enhance students' competences of action-taking, skills of art- based learning relevant to experiential learning or learning by doing, cognitive skills of critical literacy that promote inquiry, scientific research skills, and encourage students to build up their attitudes towards global-oriented issue.

Multimodal Assessment for Learning (MAFL) in Inclusive, hybrid classroom can help students **reflect** upon their attitudes and skills to advocate the human right of having an access to healthy ecosystem.

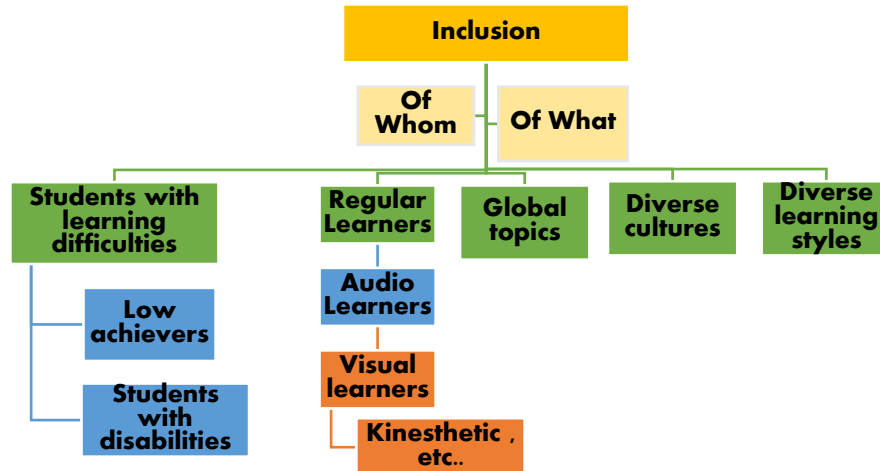


Figure 3 Inclusive Classroom: Inclusion of whom? Of What?

b) Hybrid Classroom [face-to-face & Digital Classroom]

Hybrid classroom

It is argued that “Formative embedded assessment is similar to assessment FOR learning”, (Koç, Liu & Wachira, 2015) and it is recommended to be applied by teachers to provide ongoing support as “it has immediate effects on student learning”, Koç, Liu & Wachira, 2015) .

All Assessment types can occur in all learning contexts: face-to-face learning environment, digital learning environment or hybrid-learning environment. The mode of delivery of assessment is the key. (Haidar, 2022)’s study confirms that “Digital learning platforms provide a suitable and powerful place for teachers to connect to one another, generate content and share information. Examples of educational digital platforms are Canvas, Moodle, and Microsoft”. Using the Microsoft Teams applications can help promote students’ and teachers’ searching, browsing, digital literacy skills.



Figure 4 COVID19 Lockdown Impact on Changing Assessment

To choose the best assessment tools and strategies in hybrid classroom is to identify the learning objectives that teachers need their students to accomplish by the end of the learning processes. “The effective design of online learning environments relies, in part, on the ways in which synchronous and asynchronous interactions and communications represent an integral part of the course architecture”, (Koç, Liu & Wachira, p: 115, 2015).

Koç, Liu & Wachira (2015)’s recommends using embedded audio feedback assessment in asynchronous online teaching when assessing written text by students as it can provide supportive framework to guide or to discuss points of weakness. However, teachers intending to use audio as a feedback assessment are recommended to consider the audio size and to “keep the **audio feedback short with direct comments** on the major points of the students’ writing”, (Koç, Liu & Wachira, p: 138, 2015).

Koç, Liu & Wachira, p: 138, 2015) argue that hybrid classroom and blended learning has the feature “join the best features of in-class teaching with the best features of online learning to promote active, self-directed learning opportunities for students with added flexibility”.

“What has recently brought this term into the limelight is the infusion of Web-based technologies into the learning and teaching process”, (Allen & Seaman, 2010; Clark, 2003). These technologies are argued to be creating fresh “opportunities for students to interact with their peers, teachers, and content”, (Koç, Liu & Wachira, p: 160, 2015).

Why hybrid classroom & blended learning is preferable

Koç, Liu & Wachira (2015, p: 160) ‘s study demonstrates that “Most of the recent definitions for blended courses indicate that this approach to learning offers potential for improving the manner in which we deal with content, social interaction, reflection, higher-order thinking and problem solving, collaborative learning, and more authentic assessment”.

Hybrid classroom can provide teachers an opportunity for a dynamic “intentional integration of face-to-face and online learning experiences through the use of digital technologies”, Koç, Liu & Wachira, p: 160, (2015).

The study suggests that online activities can vary to involve commenting on blogs’ articles, researching various EFL skills necessary for their learners, raising questions that conflict with the students’ beliefs, asking probing questions to make associations between the content, attractive infographics and PPT. slides to help render concrete ideas, changing the mode and style of synchronous presentation on Microsoft Teams, (Keller,1987).

The study suggest that assessment of Students’ learning and performance can occur through varied online techniques. Synchronously, online teaching activities include links with tasks on google docs. or Jamboard, breakout room debate, responding to online exercises.

Asynchronously, online formative assignments can be provided- such as links to google documents- for students to share their comments on short PDFs. Students can discuss global-oriented topics such as climate change, sustainable development, and can upload text-based assignment on Google Classroom.

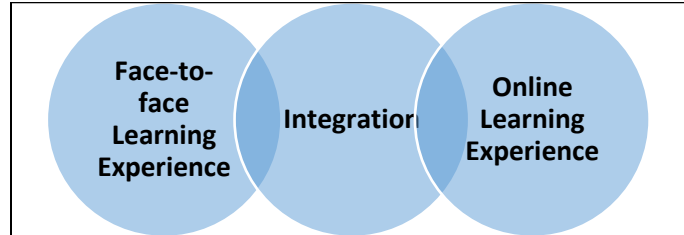


Figure 5 Illustration of blended learning/ Hybrid Classroom, adopted from: Koç, Liu & Wachira, (2015)

Blended learning can be one way of addressing the problem of large class size “to re-examine the nature of assessment feedback and who provides it”, (Koç, Liu & Wachira, 2015). Hybrid classroom’ techniques of assessment can involve (1) self-assessment, (2) peer-assessment, (3) teacher-assessment, or (4) society stakeholders-assessment.

Self-assessment in hybrid classroom

According to Koç, Liu & Wachira (2015), it is maintained that self-assessment is “the ability of students to observe, analyse, and judge their own performances on the basis of criteria and to determine how they can improve it”. Self-assessment is argued to promote metacognition learning skills: the knowledge of cognition, monitoring of the cognition, the regulation of cognition.

in hybrid classroom, self-regulated learning known as metacognition is seen as a collaborative learning process “where internal and external conditions are being constantly assessed”, Koç, Liu & Wachira, (2015, p. 161). Self-assessment in hybrid classroom can empower students with self-regulation and self-reflection skills and encourage learners to “reflect, understand, and take action and responsibility for their learning”, (Koç, Liu & Wachira, 2015).

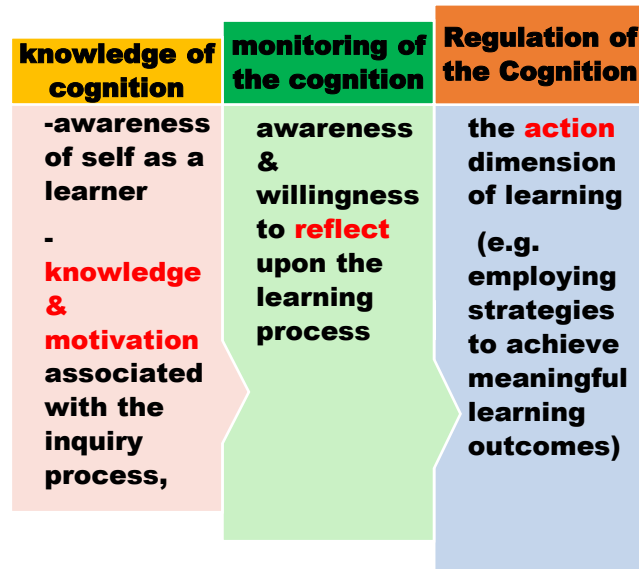


Figure 6 Illustration of self-assessment in Hybrid Classroom, based on the work of Koç, Liu & Wachira, (2015)

Teacher-Assessment

Teacher-assessment refers to the ongoing, meaningful assessment feedback given by the teacher to “help students develop the necessary metacognitive skills and strategies to take responsibility for their learning”, (Koç, Liu & Wachira, 2015). So, the teacher’s role in hybrid classroom is to “place greater emphasis on *formative* assessment practices”. The teacher can both design assessment activities that motivate (1) “intrapersonal skills” such as inner-dialogue, think aloud etc. and (2) “interpersonal skills” such as: interviews, dialogues, (3) “Interpreunership skills” such as: project-based learning skills, effective communication skills. It is speculated that good-assessment feedback:

- helps clarify what good performance is (goals, criteria, standards)
- Facilitates the development of self-assessment and reflection in learning
- Delivers high-quality information to students about their learning
- Encourages teacher and peer dialogue around learning
- Encourages positive motivational beliefs and self-esteem
- Provides opportunities to close the gap between current and desired performance
- Provides information to teachers that can be used to help shape teaching

Hybrid Classroom and digital technologies:

Creating meaningful assessment activities: How?

It is maintained that peer assessment, self-assessment and teacher-assessment of learners' knowledge, skill, and attitudes must be an integrated process in hybrid classroom.

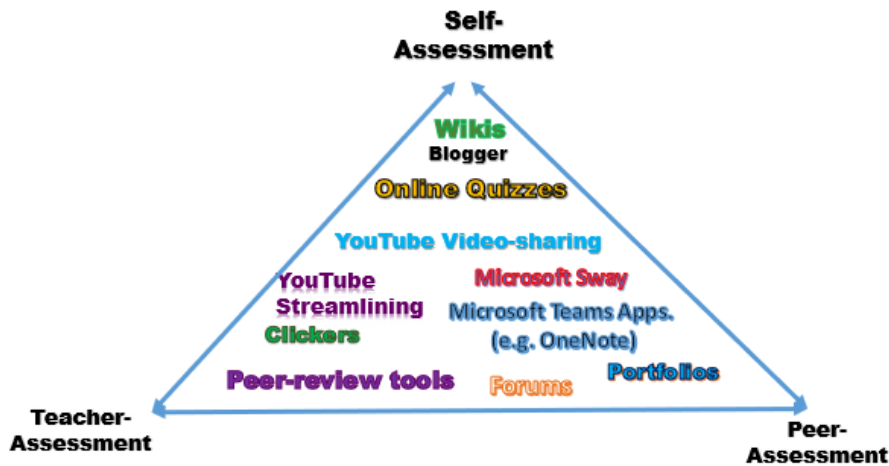


Figure 7 types of learning assessment.

It is pertained that “digital technologies can be used to support external expert assessment opportunities”, Koç, Liu, & Wachira, (Eds.), 2015. For example, using Microsoft Teams Apps, or Canva App can motivate students' higher order thinking skills (HOTs) to express their views visually or using PDF audit to insert an audio with their comments on global issues, Besides, Blogger and WordPress can be supportive platforms for students to publish their own critique for receiving comments and views from their peers (locally and global peers) and their teachers and peer teachers and even other stakeholders in the society.

Synchronous and asynchronous assessment is recommended to be an integrated process that can be delivered through wiki, blogger, online quizzes, YouTube streamlining, video sharing,

Microsoft Teams Applications (e.g.: Microsoft OneNote, Forms, Microsoft Sway), forums, portfolios, clickers etc.



Integrated process of hybrid assessment , adapted from Koç, S., Liu, X., & Wachira, P. (Eds.), 2015.

Figure 8 An integrated process of hybrid classroom assessment, adapted from Koç, S., Liu, X., & Wachira, P. (Eds.), 2015.

c) Global-oriented competence

Global-oriented competence can be defined as “the capacity and disposition to understand and act on issues of global significance”, (Mansilla & Jackson, 2011). Global-oriented competence can be considered as a recast as it can enable students to synthesize what they have learnt from different disciplines to recast new product to address community problems.

It is maintained that “Education for global competence builds on the ideas of different models of global education”, (OECD, 2018) involving global citizenship education (GCE), social justice education and sustainable development. It is maintained that “Acquiring global competence is a

life-long process”, OECD (2018), (Mansilla & Jackson, 2011). Hence, the current study suggests that the assessment for these competences is continuous in a spiral form as the teacher defines the needs assessment, then plan, then implement the assessment tasks, then review and evaluates students’ new literacies, skill, and attitudes. In case of shortcomings, a new cycle of assessment starts with needs assessment till reaching to reviewing and evaluating.



Figure 9 Spiral Assessment for learning, adapted from Gosling and Edwards, 2003.

Global-Oriented Competence: What? & Why?

Global-oriented competence requires adopting different approaches of not only curriculum design, but evaluation and assessment as well. The study confirms that Global citizenship, global social

justice and sustainability are rights-based approaches which requires a shift from assessment of students' needs to assessment of students' competences to learn to take an action for their societies.

Global-oriented competences of global citizenship, global social justice and sustainability involve the work of not only students, stakeholders of the societies: students, their families, private sector, public sectors, civil societies national and international institutions and media. Besides, the study argues that this global perspective -in turns- requires shift of classroom to be inclusive enough to enable discussions of diverse cultures and assessment for students' competence to share solving bigger context problems.

Assessment of global competence: How?

The paper suggests that MAFL model for reinforcing global competence can be composed of *(1) pre-assessment, (2) during-assessment, and (3) post-assessment*. In the pre-stage assessment, students are introduced to a questionnaire to assess their critical literacy skills on global-oriented issues (See Appendix A). This questionnaire can help measure how far students and teachers are familiar with global issues, to elicit students' and teachers' "capacities to critically examine global issues; recognize outside influences on prospect on perspectives and world views; understand how to communicate with others in intercultural contexts; and identify and compare different courses of action to address global and intercultural issues. (PISA, 2018). As for while-assessment, teachers create an educational context such as quizzes, MCQ to reinforce students' attitudes towards global issues. The final stage, teachers are to engage students in projects, art-based problem solving to address global issues impacting their lives such as greenhouse gases for example (See Appendix F, on p: 36).

It is proclaimed that having a rubric to guide teachers while measuring students' skills and competence of global issues can guide teachers to provide an authentic assessment for students away from random teaching (Chappuis, 2015). The teacher can also assess his/ her performance of formative assessment through the fulfillment of the following:

- Have I fully understood the educational task well?
- Have I partially understood of the task?
- Have I fully implemented that task of competence enhancement well?
- Have I partially implemented the task of competence assessment

Chappuis, 2015 argues that conscious, regular "formative assessment practices can help shift the classroom culture to a learning orientation". So. Teachers need to retrain to be able to assess students' reasoning through "tasks that require students to construct their response in the form of writing or drawing rather than selecting from a set of pre-defined alternatives", (Deardorff, 2009).

Where Am I Going?
Strategy 1: Provide a clear and understandable vision of the learning target. Strategy 2: Use examples and models of strong and weak work.
Where Am I Now?
Strategy 3: Offer regular descriptive feedback during the learning. Strategy 4: Teach students to self-assess and set goals for next steps.
How Can I Close the Gap?
Strategy 5: Use evidence of student learning needs to determine next steps in teaching. Strategy 6: Design focused instruction, followed by practice with feedback. Strategy 7: Provide opportunities for students to track, reflect on, and share their learning progress.

Figure 10 A seven-strategy rubric on how to assess for learning

Globally competent students and teachers are characterized by being able to ‘investigate the world beyond their immediate environment by examining issues of local, global, and cultural significance; recognize, understand, and appreciate the perspectives and world views of others; communicate ideas with diverse audiences by engaging in open, appropriate, and effective interactions across cultures; and take action for collective well-being and sustainable development both locally and globally’, (PISA, 2018).

The study suggests that a Multimodal pre-assessment for learning can provide results that can enable educators to design a roadmap how to integrate global competence into teaching, to monitor and review students’ progress as being globally competent. This fits with the concept of spiral and on-going process of multimodal assessment for learning.

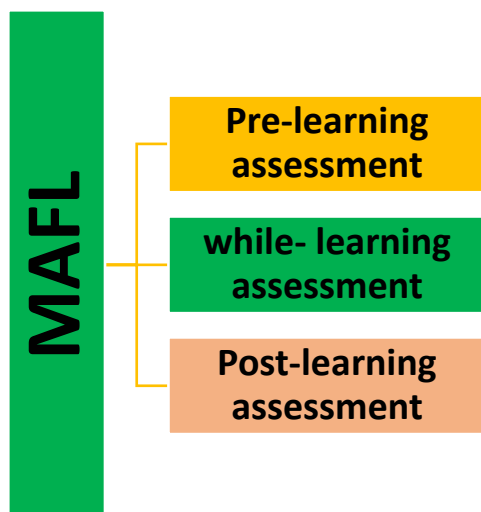


Figure 11 suggested framework for MAFL

Educating for global competence: Implications for Educators

It is argued that “Educating for global competence is an accessible, practical approach that is not beyond the reach of the average teacher”, (PISA, 2018). Students can “gain global competence by practicing students’ skill development in the classroom and applying their development their learning to real-world topics”, (PISA, 2018). However, competence can be defined as “is not merely a specific skill but is a combination of knowledge, skills, attitudes and values successfully applied to face-to-face, virtual or mediated¹ encounters with people who are perceived to be from a different cultural background, and to individuals’ experiences of global issues”, (PISA, 2018).

It is maintained that “Although reading learning reading textbooks, listening to lectures, and memorization have textbooks, have their place in learning, they must be paired with more their more active learning to develop global competence. active Teaching for global competence does not require a new curriculum. It requires combining instructional strategies for active learning with global issues and weaving them into the existing curriculum”, (PISA, 2018). Instructional

Formative / Summative Assessment for Learning (AFL)

Formative assessment is explained as “the process of appraising, judging, or evaluating students’ work or performance, and using this to shape and improve their competence’, (Silseth & Gilje, 2017). Formative assessment can be considered as a process that connect learning to assessment and enable students to understand their trajectories. As such formative assessment can contribute to improving students’ performance in summative assessment on the long run. As “the teacher helps students see how their actions as learners contribute to the development of their learning trajectories”, (Silseth & Gilje, 2017), and empower him/her to re-configure the school subject and their learning trajectories in a meaningful way. Formative assessment for learning can lead to summative assessment for learning and summative assessment can lead to formative assessment of learning

e) Multimodal Assessment for Learning (MAFL):

Multimodal vs. multimedia

Multimedia and multimodal can overlap, however they are different as every multimodal project is multi-media, but not every multi-media is multimodal. According to Fatehi (2020), multimodal “is relevant to Multimodality which is defined as the concept of understanding information through various modes of communication”.

These modes of communication involve (1) the linguistic mode (2) aural mode (3) spatial mode, (4) visual mode, and (5) gestural modes. It is argued that the five-mode medium assessment for learning suggested by the study “is sociocultural shaped-context to foster the competence of making conscious sense of the text”, (Fatehi, 2020). The study maintains that assessment for learning (AFL) can empower students to develop conscious learning through engaging students in creating multimodal content. Multimodal is deeply established in

metacognition, theory of mind (TOM), Critical Discourse Analysis (CDA), sociocultural, social constructionism which argue that multiple versions of the world are legitimate and that texts are open to multiple interpretations.

Reviewing literature, relevant studies prove the efficacy of using multimodal assessment. Olivier (2021) argues that “the semiotic resources used in the broader learning context should also be considered for assessment”. It is maintained that multimodal project is characterized as (a) being interactive, and (b) requiring the audience to experience your argument. In multimodal project, the emphasis is the means to persuasion. On the other hand, multimedia project is argued to be concerned with the technological form, or the medium of presentation.

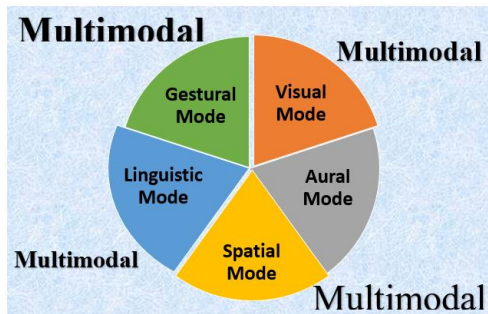


Figure 13 Modes of communication. This infographic is based on a diagram created by the New London Group.

Multimodal Assessment for Learning (MAFL): Summative and Formative

Broadly speaking, assessment can serve as formative or summative function. Summative assessment serves the accountability principle to hold “publically funded schools accountable”, (OECD and CERI, 2008), for providing quality education. However, consistent formative assessment serves as an interactive, on-going process working across all different parts of the

school syllabus. Formative assessment can serve teachers to define points of weakness on the part of their teaching process or the points where students' concentration might break down to guide their remedial feedback process. Furthermore, it is argued that formative assessment can promote "the goals of life-long learning", (OECD and CERI, 2008), as it can motivate students to learn voluntarily, and can foster their self-motivated pursuit of knowledge. It is maintained that the principles of formative assessment can be used at the level of schools and governance policy with the aim of promoting "effective and constructive cultures of evaluation throughout education systems", (OECD and CERI, 2008).

Why Multimodal Assessment for Learning

"Given the changing nature of literacy, there is an urgent need to develop alternative ways of assessment in support of students' new literacy practices in the digital age", (Yeh & Chiu, 2013). Earlier, assessment was used to measure students' attainment of the content and addressed lower thinking skills (LOTS) using quizzes with simple questions that cannot help monitor or review students' Higher Order Thinking Skills (HOTs). It is maintained that "Just giving students feedback about current achievement produces only modest benefits, but where feedback engages students in mindful activity, the effects on learning can be profound", (Wiliam, 2011).

Roughly speaking, when assessing students' skill or performance, teachers need to consider the following principles (1), identify the purpose of the evaluation, (2) assign tasks to students, (3) set criterion for students' performance, (4) set standards for students' performance, provide feedback to students' achievement, (5) monitor outcomes of the evaluation of students. Wiliam (2011)

explains that the basic criterion for determining the impact of feedback is to be “encourage[ing] mindfulness in students” as it must lure students to do “pre-searching” and to attempt their own way of answers having in mind no one answer fit for all and that requires questions that stir students to think deeply, to produce varied multimodal answers that reflect the character, the attitude of students. The study suggests that this type of questions can be introduced through multimodal assessment for learning (MAFL) to re-enforce issues controversial issues with open ended questions on global-oriented competences of global citizenship, global justice and sustainable development necessary for the 21st century digital age characterized by drastic climate changes and that requires even the role of students to share responsibility, (Luciano, 2018).

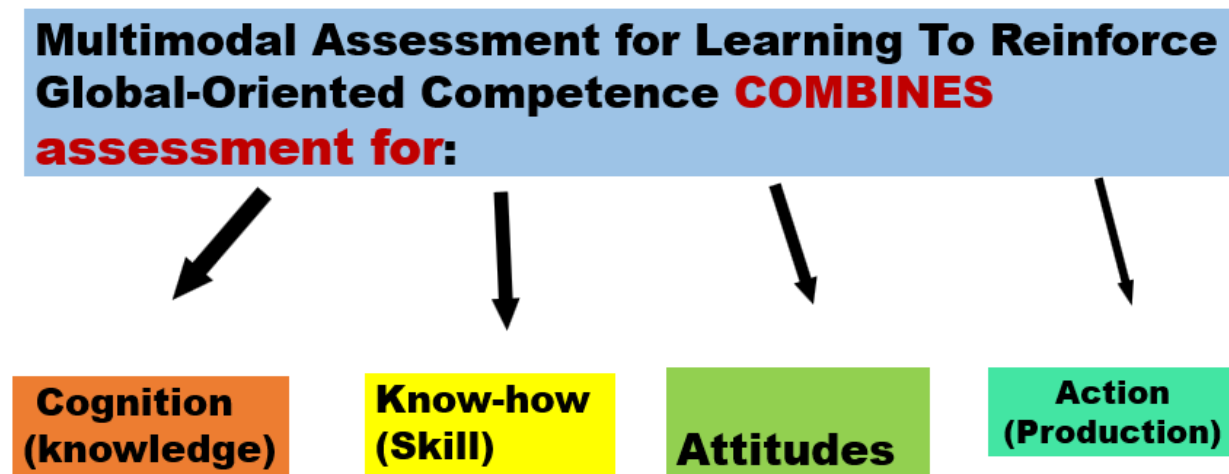


Figure 14 The components that can MAF assess

Besides, Multimodality can help foster students’ “metacognitive and control strategies” of learning to learn. So, the study argues that Multimodal Assessment for Learning (MAFL) can help

foster students’ skills of self-efficacy, self-regulated learning necessary to life, developed through task performance, (OECD/ CERI, 2008).

Rationale for Multimodal Assessment for Global- Oriented Competences

1) Assessment for Global citizenship

Assessment of Global citizenship skills is necessitated by different factors. Firstly, the massive flow of digital information; and advances in communication technologies made people to be interconnected and interacting more than earlier before in a borderless virtual world affecting the real world.

Besides, conflicts and fighting over water, fuel resources has forced massive migration and that created heterogeneous societies that need to learn the skills of multiculturalism and tolerating differences necessary for global citizenship to mitigating “Tensions and conflicts among populations that have causes and impacts beyond national boundaries, and challenges for sustainable development, including climate change, also call for cooperation and collective actions at both global and local level”.

The study suggests Multimodal Assessment for learning (MAFL) as best suits the global-oriented competence to empower students’ multi-literacy skills, attitudes of being globally competent students. The study suggests Multimodality assessment for learning to enable teachers “create a motivating, social class environment to negotiate real life issues like: poverty, education, equity, and equality”, Fatehi, (2020).

Teachers can promote global citizenship skills and attitude of students by “by integrating knowledge/skill development with reflection on the need for actively changing current social” (Park, Choe, & Kim, 2020), activities and individual actions. The study suggests for example Blooms Taxonomy to design global citizenship’s lesson plan objectives

2) Assessment of Students' sustainability

The world is passing through drastic climate changes. Cicerone and Nurse, (2020) argues that climate change and related environmental issues are ranked by the international Economic Forum "as the top five global risks likely to occur within the next ten years",

Climate Action and Global Education Approach

Climate change is argued to have an impact on people all over the world, so responding to that global risk is argued to require new global education approaches to address it. Global education is proclaimed to be interdisciplinary "education that opens people's eyes and minds to the realities of the world, and awakens them to bring about a world of greater justice and equity

Climate Action Education & Intercultural approach

The idea of how to enable students and teachers interact successively with people from different cultures to take climate action is argued by Deardorff (2006)'s study that introduce "intercultural Competence Framework". Promoting inter-culture competence means that students and teachers can demonstrate effective and appropriate communication with people having different culture to share solving environmental problems such as climate change. It is argued that attitudes, knowledge, skills that can lead to internal (e.g., adaptability, empathy and flexibility and ethnographic perspective), and external outcomes.

3) MAFL to assess students' Competence of Global Social Justice

The concept of social justice can be integrated into language classroom "by integrating knowledge/skill development with *reflection* on the need for *actively changing* current social systems and personal actions", (Park, Choe, & Kim, 2020). The study suggests critical literacy assessment to empower students voice their opinion not to be taking things for granted. Moreover, using multimodal texts to assess students' ability to read between lines, to find out implications, assumptions can help foster students' ability to discover bias.

Equity is explained to involve both high-quality education, lifelong education. High-quality education is argued as being an avenue for liberating children’s minds from taking things for granted and promoting socio-cultural discussions of local and global issues relevant to learners’ lives (Misra, 2012).

Equity is the basic way to develop economic growth and social cohesion. citizenship (Winch & Gingell, 1999). Equity is explained to involve high-quality and lifelong education as an avenue for liberating children’s minds from taking things for granted and promoting socio-cultural discussions of local and global issues relevant to learners’ lives (Misra, 2012).

The study argues that Multimodal Assessment for Learning (MAFL) can improve global and national social justice in order to enhance human rights and replace oppression with autonomy of critical thinking and limit conflicts and bias. The United Nations approach to “leaving no one behind” not only entails reaching the poorest of the poor, but also seeks to combat discrimination and rising inequalities within and amongst countries, and their root causes. UN member states’ challenge was to break the loop of poverty. UN Sustainable Development Agenda is designed “to protect human rights and promote gender equality and the empowerment of women and girls; and to ensure the lasting protection of the planet and its natural resources”, (och Regeringskansliet, 2015).

The study suggests using semiotics to assess students’ global competence of advocating eco-justice, diversity and multicultural. As students can vary fonts, use deep-meaning photos to advocate the human rights of the vulnerable located in harsh-weather places, or children dropped out of schools. Students can Identify the ways people in different countries are interconnected,

plan a strategy to influence their neighborhood or school to adopt practices to support the needs of the minorities, or analyze an image on bulldozered olive trees in occupied territories. Or design a campaign poster, (See Appendices B, C, D, E on pp: 33-35)

Furthermore, the study suggests that MAFL can promote Emotional Intelligence (EQ) as Assessment for learning *Global citizenship* skills, sustainability, climate change and social justice can foster students’ Emotional Intelligence. “An emotionally intelligent teacher is a better facilitator of quality learning”, (Shafait, et. al., 2021) using constructive assessment to reduce stress. In such a safe environment, students can voice their empathy to relieve problems of migrants, wildlife, people hit with floods, etc.

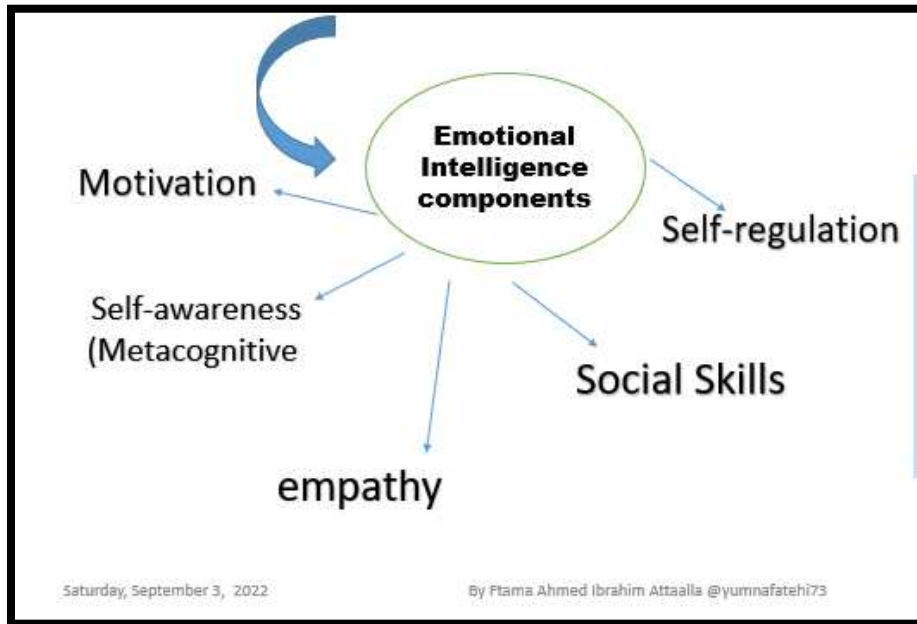


Figure 15 MAFL for assessing students’ global competences to enhance EQ

Global_ Oriented Competence & Classroom Community Concept

Assessment for Learners' Global oriented competence can give rise to the concept of community which is argued to "create connections to other people, connections to our past, present and future, connection to the environment, connections to social and political issues", (McDonough & Mobilia, 1991). This sense of relatedness deepens students' competence of "global citizenship" and can students share solving the problem of those homeless, migrants and minorities.

Human rights and eco-rights educational assessment of global competence can enhance students' abilities to analyze root causes, to build up overall arching goal under one theme for which students, teachers and all stakeholders to societies can work. UNICEF (2007)'s study argues that "All adults can play a role in achieving children's rights" and "children are entitled to help" while in task-based learning, children sound to be in need of help. As such rights-education unleash students' potentials and motivate them to be literate not only in printed texts but also multiliteracies and adopt multimodal text-based analysis techniques. They use the multimodal word to read, interpret and shape the world. "Multimodal assessment allows teachers to help students build a meta-language for understanding and describing multimodal texts", **Yeh and Chiu, (2013)**.

Implications of the Study

Surveying the relevant literature, the study implicates the possibility of using multimodal assessment for learning to reinforce global competence in hybrid, inclusive classroom. Besides, Applying the pilot study of "Edu4 Livable Climate" (See Appendix A, p: 27) proves that assessment for learning to reinforce global competence using Microsoft Teams video conference and the WhatsApp can be doable. Furthermore, the study implicates the necessity to prepare our students to be globally competent to be able to respond positively to the global challenges through using Multimodal Assessment for Learning (MAFL). Students' partnership with global peers and with their societies stakeholders can help accelerate steps of sustainable development.

Moreover, the study implicates that systematic professional development is necessary for educators to improve their capacity to assess learners' global competences of global citizenship, social justice and sustainable development in order to be capable of fostering students' global competences. The speculated challenges implicate that public school governance need to underline and install Multimodal Assessment for Learning (MAFL) to reinforce global citizenship through the regular or shadow the curriculum. The challenge is to provide access to professional training of teachers and supervisors to advocate global-oriented competences by endorsing MAFL as a tool for enhancing it. Action research on global-oriented competence and Multimodal Assessment for Learning (MAFL) needs to be supported at schools and educational zones.

Recommendations

Furthermore, the study recommends that teachers' knowledge and skills of new literacies need to be promoted to be able to develop appropriate assessment methods that evaluate these new literacy skills of students. Besides, the study recommends the need for promoting teachers' knowledge, skills and attitudes of global-oriented competences (e.g., global citizenship, global justice, and sustainable development, climate change) to empower their skills of using appropriate assessment strategies and tools that can measure students' global competences.

Furthermore, traditional school requires shift in the management system to give more freedom for children to discuss issues relevant to global social justice such as migration, marginalized minorities and so on.

Finally, it is recommended to develop teachers' knowledge and skills of multimodality, interdisciplinary, intercultural and multi-stakeholder's approaches considered as best for promoting assessment for learning to reinforce global competence in hybrid, inclusive classrooms.

Conclusion:

To conclude, multimodal Assessment for learning to reinforce global competences in an inclusive, hybrid classroom is a multi-sphere study that tend to achieve great success and create shift from conventional assessment of learning.

MAFL in hybrid inclusive classroom can improve students’ competence of social communication such as the ability of emotional resilience to support students’ learning. Also, MAFL can enable school to extend relationship to real and virtual communities to create wider opportunities for learners to learn more and better in richer context. MAFL is suggested to foster tolerance and better objective communication (See Appendix I, on p: 41). **As the study demonstrates a model of using multimodal (audio, printed, graphic effects scripture from the Bible, the Old Testament and the Holy Quran to discuss the sustainable issue of water.**

Figures

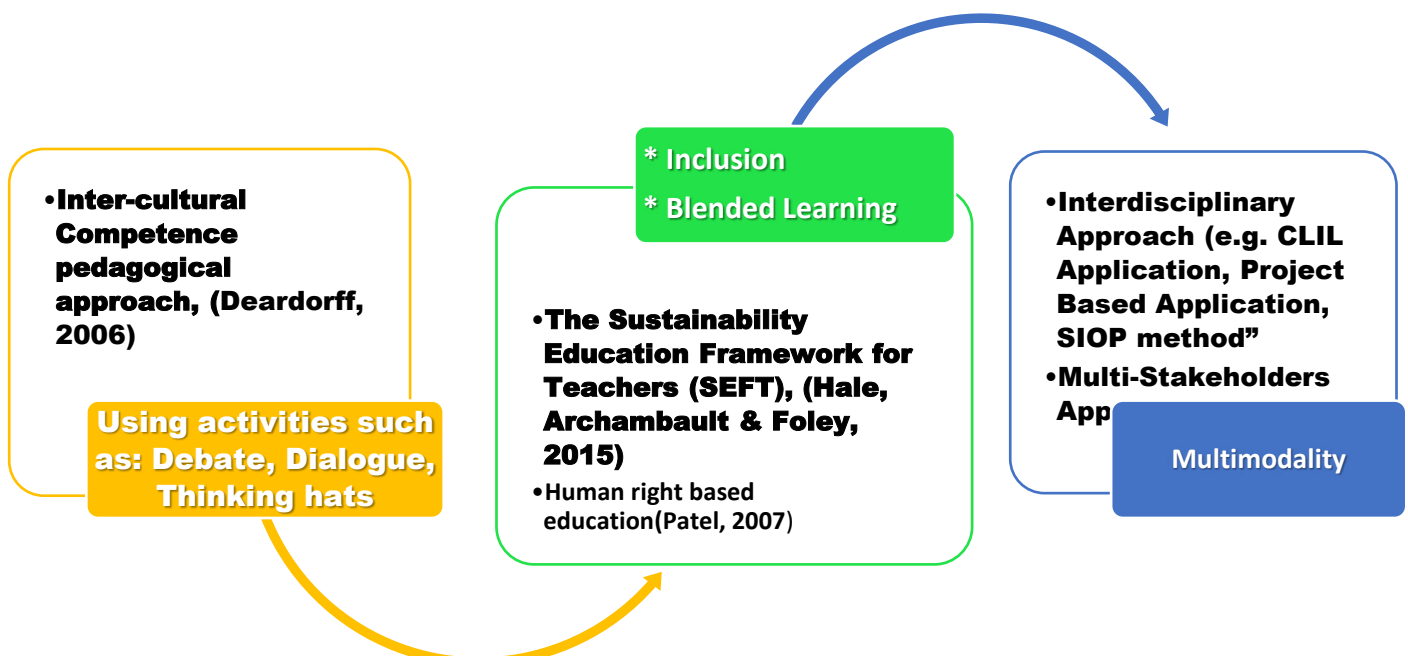


Figure 16 An illustration of the multi-sphered MAFL to reinforce global competences in an inclusive, hybrid classroom

Appendices

1. Appendix A: multimodal pre-assessment

6

Education is to promote
climate action * (6 Points)



- crucial
- less supposed
- proved to invalid

7

"When education helps
students develop a strong
personal connection to climate
solutions" and "it can have
consequential impact on
students' daily behaviors and
decision-making that reduces
their overall lifetime carbon
footprint", (Kwauk & Winthrop,
March 26, 2021). * (6 Points)



- Not so important
- Neutral
- extremely important

4

How likely are you to recommend Climate Change Education (e.g. Climate Change Literacy) to a friend or colleague? * (10 Points)



0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Not at all likely

Extremely likely

5

1- Which approaches are best for teaching sustainability development to mitigate climate change consequences? * (6 Points)

- Learner-centered approach of teaching & learning
- Teacher-centered approach of teaching & learning
- The Banking Model of Education

2

What does SDG stand for? *
(6 Points)



- Sorted Dedicated Goals
- Sustainable Development Goals
- Sustained Delimited Goals

3

What does Climate Change
Education aim at? * (6 Points)



- Cultivating students' skills to Respond to Climate Change
- Cultivating students' skills and knowledge to Respond to Climate Change
- Cultivating teachers and students' skills and knowledge to Respond to Climate Change

2. Appendix B: A Model of designing MAFL’s learning objectives

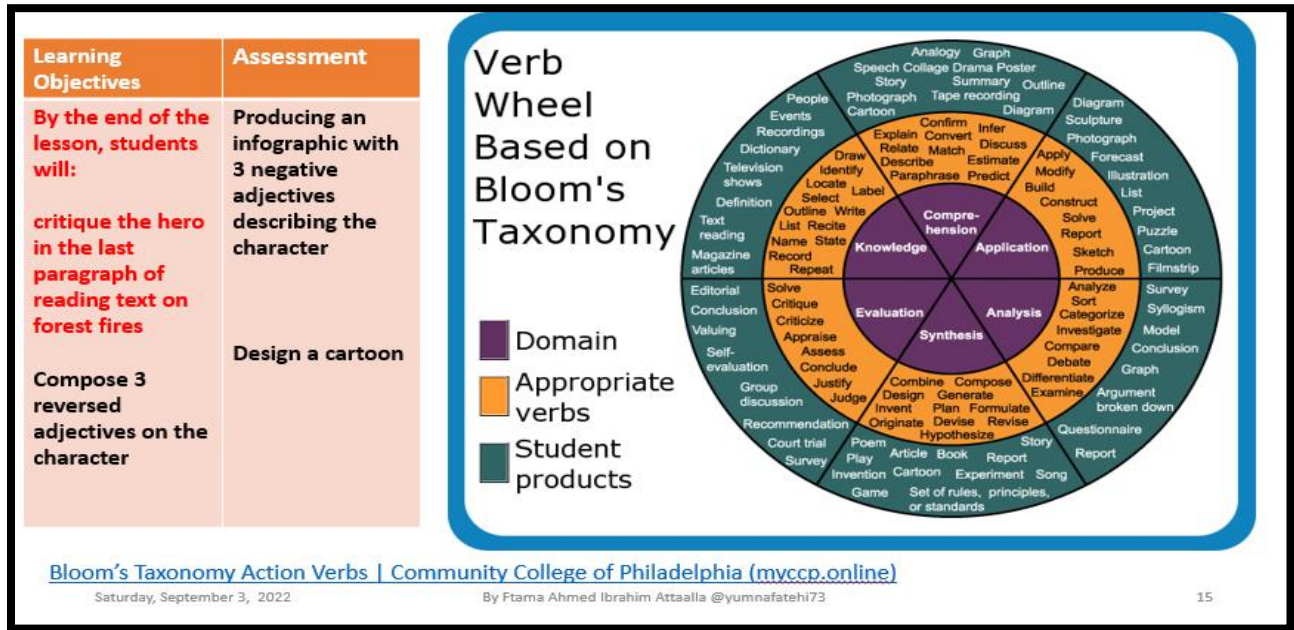


Figure 17 A model MFLA' learning objectives

3. Appendix C: An Example of Assessment of Global Citizenship

Example of Assessment of Global Citizenship

1- Devise a poetry recitation forum to raise awareness of different issues around the world – child labour, climate change, peace-building.

Assess students competence by asking students to plan for the event, sending invitation, rehearsing, recording voice on podcast then to upload, asking for online comments

[bloom's-taxonomy-gardner's-multiple-intelligences.pdf \(worldvision.com.au\)](https://www.worldvision.com.au/bloom-s-taxonomy-gardner-s-multiple-intelligences.pdf)

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Figure 18 An illustration of an Example of Assessment of Global Citizenship

4. Appendix D: A example of

A Model lesson Plan using Multimodal Assessment for learning (MAFL) to reinforce one of the global-oriented competences: Climate Change using the Strategies for inter-cultural competence

After watching a video, learners are expected to:

- 1. Draw an infographic analyzing the consequences of climate change**
- 2. Design a reflective journal on daily activities of their farming neighborhood when getting rid of green wastes.**
- 3. Write a 3-page paper investigating how greenhouse gases can affect their family**
- 4. Negotiate how climate change affect Africa**

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Figure 19 an infographic of MAFL to reinforce climate change educational strategies in a lesson plan

1) Appendix E: a model lesson's objectives on MAFL of students' competence of global and local justice

A model lesson plan on How to assess the **emotional domain** of learning in hybrid classroom using Multimodal Assessment for Learning (MAFL)!

MAFL Can motivate students' HOTs to

- express their views visually or using PDF audit to insert an audio with their comments on global issues.
- Upload their critique on Blogger and WordPress and reply to comments and views from their peers (locally and global peers) and their teachers and peer teachers and even other stakeholders in the society.
- Design a poster to visualize difficulties people in poor countries to get water

?

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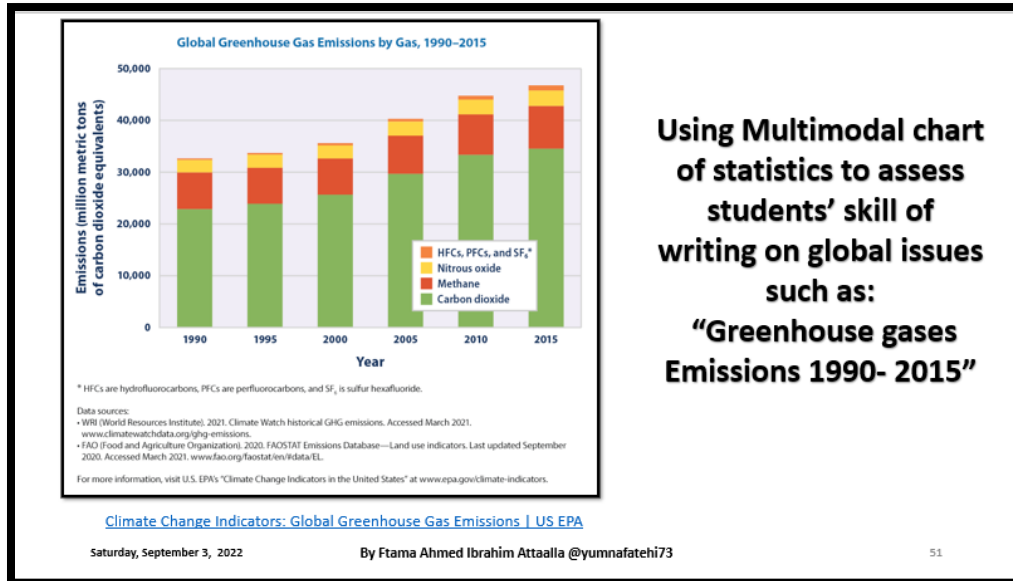
Figure 20 a model lesson's objectives on MAFL of students' competence of global and local justice

2) Appendix F: A model lesson plan on how to align assessment

Model Lesson Plan on how to Align Assessment				
School: secondary school Grade: 2 sec. Material/ Content: Video on Greenhouse Gases Target: HOTs				
Timing	Content/learning Objectives	Assessment How to know students will have learnt it	Procedure (Strategies, Activities, techniques.."	
<div style="background-color: #4a7ebb; color: white; padding: 2px 5px; font-weight: bold;">Action verb</div>	<p><u>Interpret verbally the hidden message of a video on Greenhouse gases</u></p> <div style="text-align: center; margin-top: 10px;"> <div style="background-color: #4a7ebb; color: white; padding: 2px 5px; font-weight: bold;">Content</div> </div>	<ul style="list-style-type: none"> - Produce a ppt. slide with infographic and embedded recorded comment by students' on the video - <u>Read aloud an illustration</u> by 2 peers revealing 3 hidden messages from <u>thr video</u> 		
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Figure 21 A model lesson on using MAFL to reinforce global competence of global climate action


3) Appendix G: A model lesson MAFL to improve students’ skill of writing



Using Multimodal chart of statistics to assess students’ skill of writing on global issues such as: “Greenhouse gases Emissions 1990- 2015”

Figure 22 MAFL to improve the skill of writing on global issue of greenhouse gases

4) Appendix H: an illustration on how to use Assessment for learning to reorient students’ conscious learning



Goal Orientations Assessment Strategy using Graphic Organizers

- **Goal Orientation:** This is a term used to define different ideas students have about “why they are doing their work in school”!
- A *goal orientation* can be thought of as “how a student answers the question” of:
“What is the aim of my work?” or “Why am I doing this assignment?”

- ❖ ask a student **what** she learned today in school.
- ❖ It’s possible she’ll draw a blank.
- ❖ She may tell you what she **did**: “We worked on a reading comprehension about refugee camping,” or “We watched a video in the language lab discussing roots of”—
- ❖ **but she may unable to tell you why.** → [that is a poor skill]
- ❖ This student’s attention is not focused on what she is supposed to be *learning* from the activity—it’s focused on what she is supposed to be *doing*.
- ❖ She may not even know the goal in reading comprehension class was to learn to use the problem-solving strategy to “draw a picture” to solve a global problem, or that the intended learning behind the teacher’s cooking was for students to draw inferences about the differences between a physical change and a chemical change.

Adapted from: Chappuis, J. 2016. Introduction to Seven Strategies of Assessment for Learning. Pearson Assessment Training Institute, 23rd Annual Summer Conference July 6, 2016.

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Figure 23 an illustration of using MAFL to improve students' awareness of their learning, adapted from Chappuis (2016)

5) Appendix I: using multimodal scripture from the Bible, the Old Testament and the Holy Quran to discuss the sustainable issue of water.

Sample Activity: Multimodal Assessment for Learning (MAFL) Lesson

Analyze to tell orally which sustainable issue is addressed by the 3 texts!

- Is it direct or indirect language used to describe it?

Induct what message do the texts tell us about water!

Design a poster on how people misuse that resource?

Use simple language to campaign conserving that sustainable resource!

- Rain
- Springs (water)

Notice!

- You **assess** your students comprehension of the text by asking inference questions
- You **assess** your students competence to take an action by asking to design
- You **assess** your students' competence to campaign for / advocate the environment
- Has students' attitude helped to transform/ change behavior of others towards sustaining water

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