研究論文

# Examining the Potential of LEGO® SERIOUS PLAY® for Understanding Identity

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**Abstract**: This study examines the viability of LEGO® SERIOUS PLAY® (LSP) method as a pedagogical tool for aiding students in understanding identity. This study explains LSP methodology and its theoretical underpinning. Then, a case-study conducted utilising the LSP method with Japanese university students ($n = 83$) in the Hokuriku region of Japan is introduced. The findings suggest that through the LSP method participants were able to gain a deeper understanding of self and their identity, as well as develop better and more effective ways to communicate and discuss identity with peers.

**Keywords**: LEGO® SERIOUS PLAY®, Identity, Experiential Learning, Intercultural Communication, Active Learning

## 1. Introduction

This study seeks to examine the implications of LEGO® SERIOUS PLAY® (LSP) as an educational tool to aid in student development of identity and intercultural communication. MEXT (2023) expressed a need to recognise internationalisation in industrialized society and the importance of English and media literacy as indispensable tools for tertiary students to develop. They recognized the importance of globalising society stating that students must develop: "creativity and willingness to take on challenges," develop "leadership to govern organi[s]ations" including decision making skills and "language and communication skills for transnational collaborations; cross-cultural understanding; and a Japanese identity." Within these goals lays the framework for this research proposal echoing what Fletcher (2016) called upon when he said, "someone needs to write the first global curriculum, with global citizenship at its heart'" (p. xxi).

This paper outlines the role of LSP in identity recognition among first-year university students at a public university, studying Intercultural Communication. The study first defines LSP, and the educational theory connected to its core philosophy. Next, a review of existing LSP literature and educational theory will be examined. Third, the case study is introduced with the results and a discussion explaining the

implications of the LSP method on recognition and understanding of identity. Finally, the paper will conclude and offer recommendations for future research.

## 2. Defining LEGO® SERIOUS PLAY® (LSP)

LSP is a facilitated methodology designed for teams, organisations, and individuals that promotes communication and problem solving (Kristiansen & Rasmussen, 2014). LSP was originally developed in the 1990s by LEGO Group with the collaboration of educators and was first employed in the corporate sector to aid in promoting engagement and imagination at staff meeting (Gauntlett & Holzwarth, 2006). However, LSP is not reserved for businesses, and its educational grounding spans across multiple disciplines in educational theory. These theories include constructionism where individuals construct tangible objects related to subjects which solidifies knowledge and promotes deeper understanding (Kurkovsky, 2018). Also, the use of metaphorical thinking which encourages participants to explore complex issues in engaging and non-threatening ways (James, 2013). Another aspect of LSP is storytelling. Participants are encouraged to share and build stories about their models and provide meaning and context to their creations. Storytelling helps participants more clearly speak on their thoughts and feelings and improve their ability to express themselves in group settings (Kurkovsky, 2018) LSP method follow a very specific core approach to workshops (Kristiansen & Rasmussen, 2014).

The core approach follows a structured process that includes:

(1) Pose the question

(2) Construction

(3) Sharing

(4) Reflection (Kristiansen & Rasmussen, 2014: p. 51)

First, the facilitator poses the question to the participating group, which the participants use to get into the right frame of mind for the exercise. Then, individually the members construct a 3−D model in response to the posed question. Next, individual participants share the model's meaning to the other participants – this is the shared story telling experience. Finally, participants reflect on each story and are invited to ask questions to clarify or explore more into the models. These mechanisms connect to experiential learning theory and socio-cultural education theory (Kolb, 2015; Vygotsky, 1978). Next, LSP and its relationship to educational theory and connection to the literature is discussed.

## 3. Literature Review

LSP methodology encourages problem-solving, use of imagination, and critical thinking skills. This approach corresponds well with the objectives of experiential learning Kolb (2015) described this by

saying, "the emerging 'global village'." Where events in places we have barely heard of quickly disrupt our lives, the dizzying rate of change, and the exponential growth of knowledge all generate a nearly overwhelming need to learn just to survive" (p. 2). Experiential learning draws upon a vast array of theoretical work (Dewy, 1938; Lewin, 1951; Piaget, 1951; 1952). The core process in experiential learning is that "learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 2015: p. 49). LSP activates experience through its constructivist and story-telling roots. LSP provides an insulated and safe but active and experiential approach to learning about facilitator targeted issues. One aspect of experiential learning is reflection, which LSP leans upon ensuring all participants can understand and develop a deeper grasp of the challenges that been posed to them. Dann (2018) explained that LSP is effective in promoting educational and graduate outcome skills including creativity, communication, and shared understanding. LSP also helps in developing intercultural awareness and language learning.

Meletiadou (2023) found that multilingual students who participated in an LSP intervention improved their intercultural awareness and second language competence. LSP in this study is linked to experiential learning and through techniques with LSP students were able to make connections between knowledge and personal experience which aided in students activating their capacity to make interpretations on materials from a personal level. Meletiadou (2023) also found that students were inspired by LSP to reflect on theories and apply creative methods for collaboration and new approaches to problem solving. In addition, Meletaidou (2023) reported that oral presentation skills improved significantly in both intercultural awareness and language proficiency. In this regard, LSP enabled participants to overcome both linguistic and cultural barriers in a multicultural setting.

Another facet of LSP is its potential role in the exploration of identity. The reflective practices of experiential learning and LSP can aid participants in coming to terms with themselves in relation to the themes and topics discussed during the workshop. This process of self-reflection and considering one's place in the world also ties directly into the role of identity. Cheek (1989) defined identity as "the construct that defines who or what a particular person is" (p. 275). Burke (2020) wrote, "identity is a set of meanings defining who one is in a role, in a group or social category, or a unique individual" (p. 63). Identities define people and guide behaviour. Conceptualizing identity brings a host of challenges from the subject level, as identity is not only a core self-concept but also co-constructed through a subject relationship with society, identity encapsulates the subject's concept of who they are in the world. The key to ensuring a safe and pedagogically appropriate rendezvous with these concepts rests in experiential learning and allowing learners to self-discover themselves through the process of learning about others, sometimes referred to as identity of difference (Nuzzo, 2007). LSP offers an opportunity for this discovery in a safe and object-oriented approach.

Gauntlett (2007) examined LSP's potential for identity exploration by conducting workshops with diverse groups of individuals from differing professional backgrounds by asking them to build models representing their identities. He found that the models constructed during the exercise revealed complex, multi-faceted identities, which highlighted personal values, relationships, and aspirations. The process of building enabled the participants to articulate and reflect on their own identities in a new way that they had previously not. This coincides with the benefits of LSP in that it is engaging, enjoyable, promotes metaphorical thinking, collaboration and communication, and most importantly for identity studies a non-judgemental environment (Dann, 2018; Barton & James, 2017; Tseng, 2017). This non-judgmental environment coupled with engagement can offer opportunities to expand perspectives.

Gotow et al. (2022) observed that Japanese university students who developed larger global perspectives also developed a deeper desire to explore their own identity and in contrast when students rejected international or global challenges also rejected exploration of themselves and Japanese history and society as well. The goal with LSP is to attempt to stimulate students in improving their ability to communicate, take lead, express opinions, and develop key employability skills. Also, LSP can provide a catalyst for self-discovery and improve their desire to become global ambassadors in a global educational system that will also encourage them to share and contribute to dialogue from an authentic Japanese perspective.

To explore the benefits of LSP, a case-study of first-year Japanese university students was conducted utilising the LEGO® SERIOUS PLAY® method. LSP is both intensive and interactive, which pushes participants to reach into their own cognitive space and extract meaning from their physical creations. The act of bringing meaning to a physical creation is an experiential act and aids in a deepening understanding of self and others (Csíkszentmihályi, 2008). In the next section the case study is outlined.

## 4. Case Study: Raising Identity Awareness

The case study was designed for Japanese first-year university students in the Hokuriku region of Japan. It used the LSP method, and the instructor acted as a facilitator. It should be noted that the facilitator is certified in facilitating and designing workshops with the LSP method. Within the LSP method there are seven defined application techniques (AT). These techniques are modular, meaning that while all seven can be exercised in sequence, it is also permissible to only use AT-1 and AT-2 or to only use AT-1 several times. The application techniques are as followed:

AT-1. Build individual models and stories;
AT-2. Building shared models and stories;
AT-3. Creating a landscape;

AT-4. Making connections;

AT-5. Building a system;

AT-6. Playing emergence and decisions;

AT-7. Extracting simple guiding principles (Kristiansen & Rasmussen, 2014).

Each of these application techniques take significant time, and the case study was condensed to a single class period of 90-minutes. For this exercise, 83 first-year Japanese university students participated. They were broken into groups of six to eight members and the facilitator had four teaching assistance who had previously practiced the LSP method help with ensuring the exercise ran smoothly.

The class began with a short lecture on culture and identity, focusing on the differing backgrounds of regional parts of the United States. The goal of the lecture was to act as an awareness raising opportunity for students to orient to the concepts of difference and diversity. The lecture then introduced the basic concepts of identity and aspects of identity as defined by identity scholars (See: Erikson 1950, 1959, 1968; Kroger, 2010; Côté, 2018; Meeus, 2018; Burke & Stets, 2023;). After the lecture, participants were oriented to the concepts of identity and variation in identity. Within their groups, students were first tasked with doing a regular self-introduction (name, where they are from) and were encouraged to add any additional information, they wanted about themselves. After self-introductions the LSP method was employed.



Figure 1. Window Exploration Bag (Photo by Author)

The LSP method used the LEGO® SERIOUS PLAY® Window Exploration Bag (WEB) (Figure 1.) for the exercises. The rationale was that the number of participants was too great to use other kits, and the WEB was a uniformed set, so each participant received the same content and LEGO® for the exercise. The importance of this is, despite everyone having the same pieces, the realisation that

everyone created different models would have an impact on participant awareness of the diversity of ideas and ways to construct models.

The first step in LSP method for first-time participants is skills building exercises. In this case study two basic skill building tasks were utilised. The first, had participants build a tower using their WEB kit. The goal of the first skill building is to ensure that participants have command over the blocks and can effectively use and understand the different pieces in their respective sets. Another benefit to the tower is the first opportunity to recognise the differences between participant models – everyone's goal is the same, but the outcomes and visions are different. The second skill building task was related to metaphors, participants were instructed to build a model from several choices provided on an image. Once they completed the model of their choice, they were tasked in using it to describe the best possible classmate and then again as the worst possible classmate. The goal of this exercise was to prime participants in using the models in a metaphorical way as a meaning-making artefact (Vygotsky, 1978). Another goal of the exercise is to aid the participants in understanding their best models would eventually need to be broken down, this was accomplished by instructing the participants after each activity to completely disassemble their models. Once the participants had developed sufficient understanding of building and metaphor, the AT−1 (building an individual model) was employed.

The facilitator instructed participants to build an individual model that: described their core identity, the who, what, and why of themselves. Participants were given a limited time to do so, and the facilitator and assistants aided students when they had construction issues, but otherwise the participants were left to formulate their own response. Once students complete their model, they presented their model in the groups, then they asked questions about each members models to complete the LSP process of pose the question, build, share, and reflect.

After the AT−1, the LSP workshop concluded, and participants were asked to answer four questions about their experience:
(1) How did your understanding of your own personal identity evolve during this activity？
(2) What new insights or perspectives did you gain about your personal identity？
(3) How did discussing personal identity within a group impact your understanding？
(4) How might you apply what you've learned about personal identity in your daily life or future studies？

The responses were collected, anonymised and then text mined. The results of the text mining are discussed in the next section.

## 5. Results

The text mining results were processed on a per-question basis. The first question was: "how did your understanding of your own personal identity evolve during this activity?" The data indicates that participants developed a larger comprehension of identity. Responses correlated strongly with connection of identity to words that suggest understanding, expression, adjusting their thinking, opening to it, and recognising differences (Figure 2.).
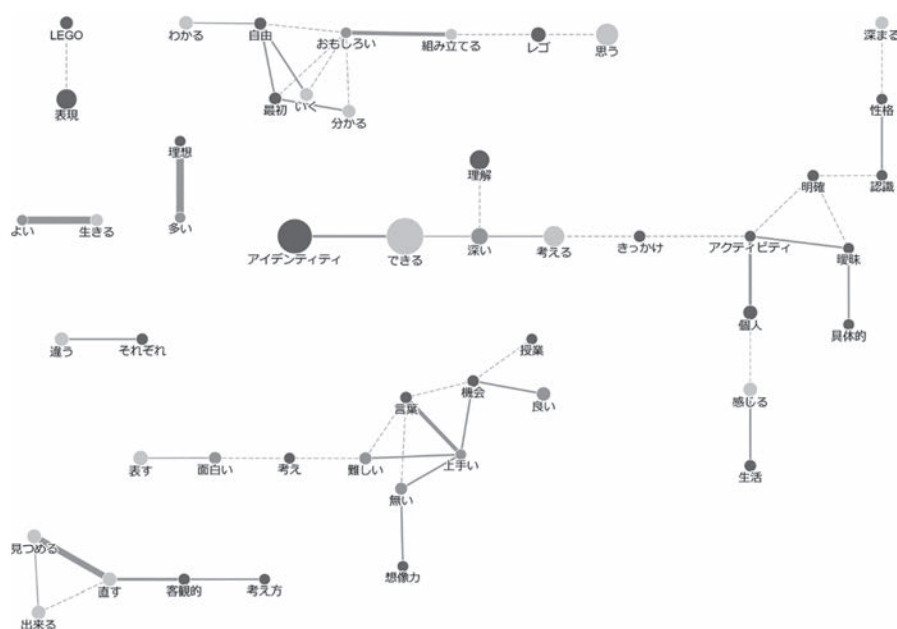
*Figure 2. Cooccurrence network for question 1*

| 名詞 － 動詞 | スコア | 出現頻度 |
| --- | --- | --- |
| アイデンティティ － 考える | 3.73 | 7 |
| 理解 － 深まる | 2.40 | 3 |
| 個人 － 異なる | 3.00 | 2 |
| 周り － 流す | 2.00 | 2 |
| アイデンティティ － 持つ | 1.20 | 2 |
| レゴ － 使う | 1.20 | 2 |
| 自由 － いく | 1.20 | 2 |
| アイデンティティ － 表す | 0.86 | 2 |
| アイデンティティ － 知る | 0.60 | 2 |
| アイデンティティ － できる | 0.17 | 2 |
| アイデンティティ － 考え直す | 1.00 | 1 |
| アイデンティティ － 聞く | 1.00 | 1 |
| アイデンティティ － 異なる | 1.00 | 1 |
| 自分自身 － くっつける | 1.00 | 1 |
| 存在 － 知れる | 1.00 | 1 |

*Figure 3. Noun-verb relations for question 1*

Additionally, participants connected identity to a deeper understanding, more thought and the capability of expressing and developing conscious understanding. Figure 3., offers some insight into the chains of thought that participants expressed when considering their evolution of identity. Figure 3. indicates that the participants, through the LSP activity were able to develop a clearer understanding of self and others. In one area of the cooccurrence network chain, the idea of expression connects with both difficult but also with improvement and their ability to imagine.

The second question was "What new insights or perspectives did you gain about your personal identity?" The thought chains for question 2 (Figure 4.) show that participants found, using the LSP method that they were able to talk more easily about themselves and were able to freely speak. They also found the experience to be interesting and enjoyable.
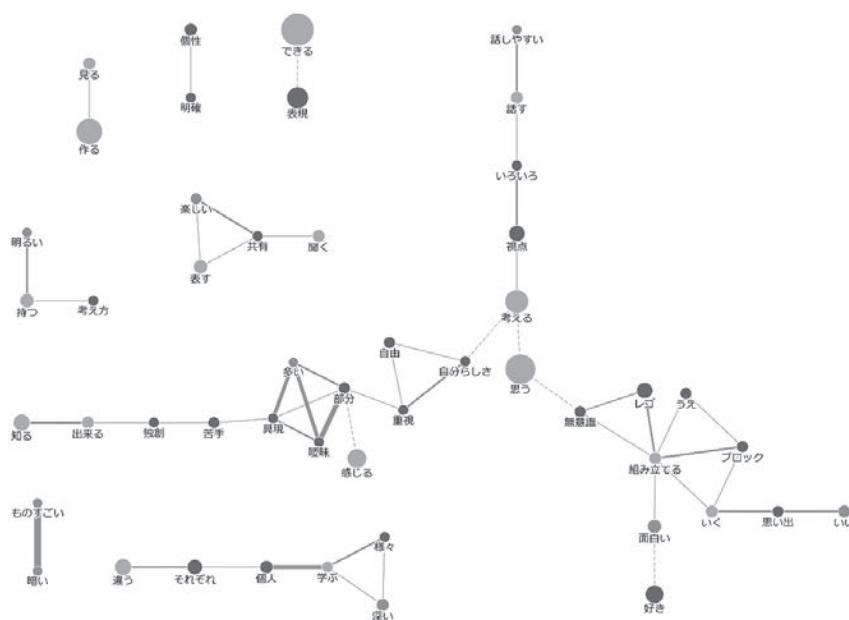


*Figure 4. Cooccurrence network for question 2*

Question 3 (Figure 5.) and question 4 (Figure 6.) also resulted in similar cooccurrences in responses. Question 3 asked: "How did discussing personal identity within a group impact your understanding?" The responses indicated that they were able to more clearly speak on their identity within the group while recognising the differences between group members. They found these differences to be interesting. Regarding identity the expressions "able to" and "comprehend" connected strongly as well as opening up their ability express their opinion. They also found benefit in developing and asking questions of their group members. Question 4 was: "How might you apply what you've learned about personal identity in your daily life or future studies?" The cooccurrence network responses indicate that participants feel that

they will be able to utilise this knowledge of self and others to aid in study, job hunting, improving their college life, and expanding their experience into new things. They indicated this through improved capability of self-expression and developing a deeper understanding of self.
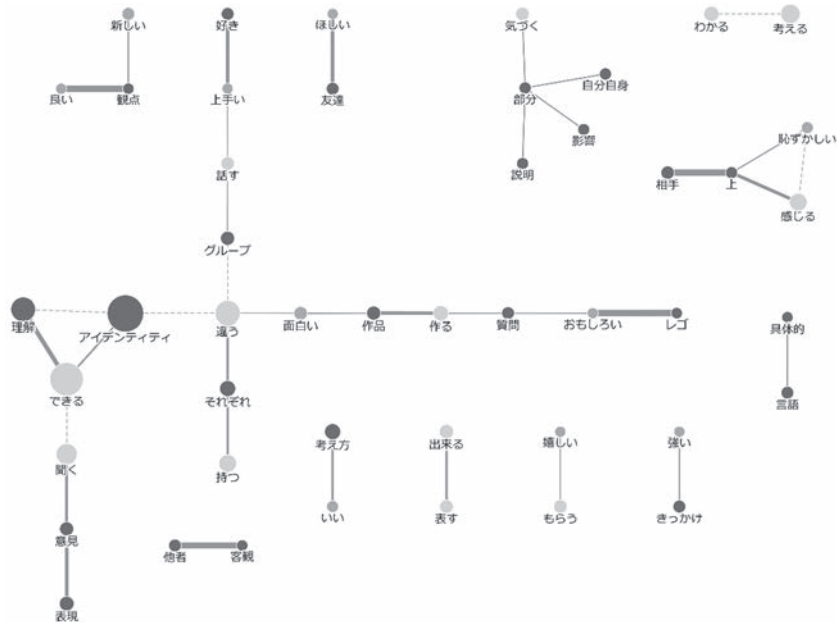


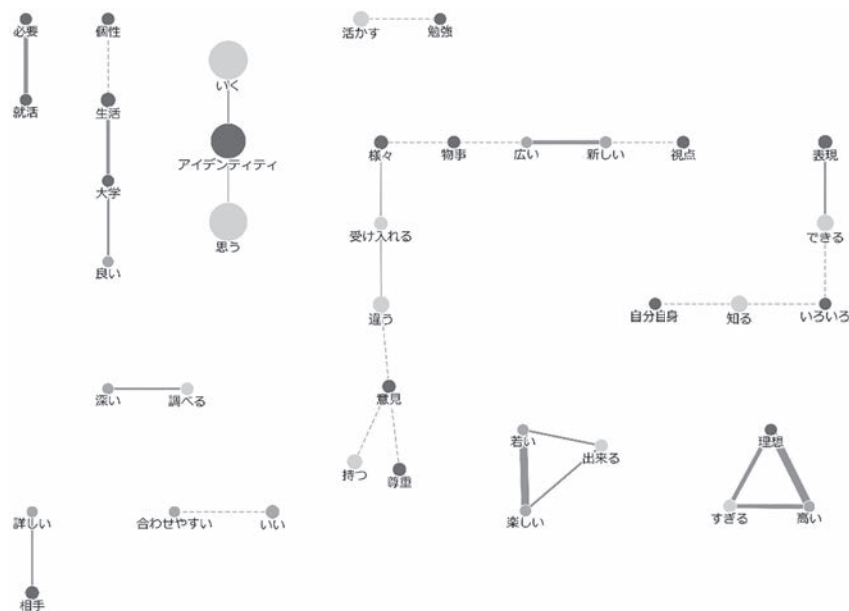*Figure 5. Cooccurrence network for question 3*



*Figure 6. Cooccurrence network for question 4*

## 6. Discussion

In this section, a brief discussion of LSP and its relation to the insights provided from the results is discussed. LSP aids participants in a deeper and more sophisticated understanding of identity in three ways. These ways are: first, through the role of metaphor, second the act of storytelling, and third by the learning benefits of reflection. By building personalised models participants externalise and articulate feelings and thoughts about who they are and how they see themselves (Ballantyne & Varey, 2006; Dann, 2018). One of the core aspects of identity is the narrative structure, which allows us to develop a cohesive version of self (Holland et al., 1998). Within the LSP process the act of storytelling and narrative flow through a sort of Kripke-esque (1980) baptism of word and expression meaning which leads into a recognition of differing aspects of self, relationships, and experiences.

From a philosophical consideration, the concept is the act of building bridges a clearer visage between the sign and symbol allowing for the expression of the participant's perceived inner world (Gauntlett, 2007). The model acting as an artefact or a medium for the transmission of this knowledge not only to the participant who constructed it, but also to those listening as it is explained. The process allows for participants to gain deeper understanding of self and those around them. The shared stories from the models aid in a recognition of the variety of experience in their respective groups, and the variation of individual identities. Through listening to the stories of others the participants gain new insights and perspectives into their identity and of those around them, recognising human diversity. Tseng (2017) confirmed this finding that LSP intervention had large effects on narrative identity over control groups and that participants had more agency and control over their understanding of personal motivations and narratives. From the results, participants' responses often had instances of cooccurrence with terms such as self, deep, and understanding which indicates a greater recognition of self and agency.

Finally, the other aspect of LSP method that benefits participants is the role of reflection. Reflection is both an essential process to LSP and experiential learning theory. Without reflection the likelihood of deep learning, the process where learners activate their comprehension of subject material and utilise that knowledge, is not possible (Kolb, 2015). Within the LSP framework, participants are encouraged to reflect on the models they built and those in their group as well and integrate these new insights into their understanding of self (Harn, 2017). This can be seen from the cooccurrence network for question one (Figure 7.) where within the chain, the term identity connects with the terms meaning able to, deep, comprehension, and thinking – suggesting that the participants were able to some degree integrate these new findings into their own understanding.

In summary, the LSP method provided participants with a platform to develop a deeper understanding

of self through building models, sharing stories, and reflecting together through questions about those models. Participants indicated that they learned and developed new understanding of self and others through the LSP workshop. Next, in the conclusion the limitations and pathways to future studies will briefly be discussed.



*Figure 7. Focus on part of cooccurrence network for question 1*

### 7. Conclusion

This preliminary case study suggests potential for LSP in aiding students understanding of multiple subjects and concepts. In this study, participants responded that they developed a deeper understanding of self and identity. While there are many benefits to LSP in identity development, there are some limitations that should be mentioned. In multi-cultural settings, the cultural difference of participants can create some impact on participant engagement. Fortunately, this study was conducted exclusively with Japanese nationals and the activities were conducted in Japanese. Another potential area of weakness is facilitator bias. Facilitators of differing cultural backgrounds could influence the design and interpretation of the activities. To mitigate this all instructions were conducted in Japanese, and the assistances employed during the workshop were also Japanese to maintain cohesion. Another limitation of this study is that the data is a single data type, meaning written responses to prompts. The prompt design could also promote students to answer favourably to the facilitator to some degree. To avoid this in the future, more neutral and quantitative testing should accompany any qualitative study.

Future research into the benefits of LSP method should look at comparative analysis of curriculum and teaching. This could include subject-specific content to see if LSP methodology enhances learner understanding of content. The goal is not to replace existing curricula or teaching methods with LSP, but to consider LSP as a suitable enhancement to aid students in understanding more complex learning goals. In this case, identity does represent a complex and difficult to understand concept.

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