## Doctoral Dissertation Academic Year 2022

Designing a Community-based
Career Exploration Service for Children
With Less Access to Role Model



Keio University Graduate School of Media Design

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# A Doctoral Dissertation submitted to Keio University Graduate School of Media Design in partial fulfillment of the requirements for the degree of Ph.D. in Media Design

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#### Abstract of Doctoral Dissertation of Academic Year 2022

# Designing a Community-based Career Exploration Service for Children With Less Access to Role Model

Category: Design

#### Summary

Aspiration is substantial in children's learning and career development. Unfortunately, the isolation of information in rural or disadvantaged areas left the children with a narrow vision of future careers. Utilizing Information and Communication Technology (ICT) and the involvement of the community, the project aims to broaden children's horizons and build a sense of connectedness among workpeople, children, and other stakeholders of the community.

Career exploration corner and support community building was designed to provide a technology-supported career exploration service for schoolchildren aged 9 to 13 who live in disadvantaged areas. The career exploration components were refined and validated with 95 children from Indonesia and Vietnam between March 2017 and July 2022. Furthermore, the iteration process of the Content Creation Workshop and Local Participation Workshop as a community-building method was implemented with university students, working people, and parents from Indonesia, Japan, and Vietnam from 2016 until 2022.

Observation, survey, output analysis, and interview are combined to examine: (1) the key elements in creating a career exploration program that promotes aspiration in the target children, (2) the roles and competencies needed from every stakeholder to be actively involved in the community, and (3) the key experiences needed to support learning and interaction in the community. As a result, the community-based design of IN360° service fosters aspiration and career exploration competencies in children through the use of new media. It also emphasized

the involvement of stakeholders from local and extra-local areas in supporting learning. Moreover, the result suggests the important role of a learning center and suggests further research on facilitator training for deployment in the future.

#### Keywords:

career exploration, community building, sense of community, ICT for rural education, 360-degree video

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### Chapter 1

### Introduction

## 1.1. The Importance of Role Model in Promoting Aspiration

Most people have been asked the question "what do you want to be when you grow up" at least once when they were kids. The answer may be an actual job or an abstract concept of a person that children aspire to be. These answers usually come from the reference they see and hear around them, be it the closest people in their household, the people they interact with daily, information from school, television, etc. In some cases, it may also be purposely instilled by the people around them.

While these childhood aspirations may not be the career they pursue when they are older, it is believed to correlate to how they perceive careers and impact their learning. Social class, gender, and ethnicity may affect someone's aspiration as they could support or restrict the career that one pursues (Chambers et al. 2018). On the other hand, students with long-term goals feel that they are learning to be someone they dream about and contribute something to the world (Dweck et al. 2014). Engagement in learning is also seen to positively influence achievement (Martins et al. 2021).

A report on Connected Learning argued that formal education lacks connection with other social contexts like relations with peers, life at home, work, and future aspirations. They suggested that learning should help children to pursue their interest with the support of their community, to hopefully help them link the learning and their interest to achievements in academics and career, and contribution to society (Ito et al. 2013). However, it is also emphasized that this sense of purpose needs to be seen as connected to school work and followed by

a realistic plan to work toward it (Dweck et al. 2014). In Massachusetts, Connecting Activities was implemented for students to help them see the relationship between their learning in school and their career aspirations by exposing them to the world of work (Westrich and Leonard 2008). This program was a part of support strategies related to dropout prevention and student engagement. And it was seen to help more students earn the competency they need to graduate.

Learning about jobs and career paths from people in the working world seems like the most obvious thing to do. However, from the survey conducted with 20,000 primary school children from 20 countries around the world, the children whose aspirations did not come from the people they know personally, only 1% of them learned about the job from the working people coming to their school (Chambers et al. 2018). A specific job might be seen as not paying well, not being as rewarding, or unsuitable for a particular gender. The world of work is also rapidly changing along with the rapid evolution of technology and globalization. As a result, the outdated fields of work are disappearing, replaced by new jobs corresponding to the demands of the future society. The people who work in the field can give a different perspective to help children break the stereotypes surrounding a specific career path and even prepare them for what comes next.

#### 1.2. Children With Less Access to Role Model

Children who are already motivated, equipped with enough knowledge and skills, and supported by their social context would be able to deal with challenges, adapt to changes, and even create opportunities. However, due to geographical, socioeconomic, physical, or other disadvantages, more vulnerable children face extra difficulties finding and building their aspirations. Children who live in rural areas or come from low-income families, for example, are disadvantaged by the gap in education quality, have fewer career opportunities, and lack exposure to various career models. Similarly, children from marginalized communities have more occasional encounters with what "people like them" can be in their careers.

Before children grow up and have the ability to explore the world outside their social bubble, they draw their aspirations from the people close to them. Without aspirations, children could lose engagement in learning and confidence in their ability to achieve their goals. Moreover, if the information they are exposed to is too isolated, it could narrow their vision of future careers. For example, children who live on a small island in Indonesia where most people work as fishermen or homemakers might raise questions about why they need to have aspirations and pursue education as those jobs can be achieved without any education (Pulau 2016). Likewise, Japanese-descent Brazilians struggling with the language barrier are often complacent with low-paying or blue-collar positions. This condition may lead to unemployment or low-income employment in the future, which affects the economy on a bigger scale.

Widening children's awareness of the varieties of careers can open more possibilities for them and help them make better career decisions in the future. However, the educational institutions and communities where these children live usually lack the human and financial resources to do so. Moreover, for these children, simply gaining access to information will not solve their career problems. To bridge the lack of information, inviting volunteers from the world of work to school may play an important role in broadening their horizons (Chambers et al. 2018). Since their local community is usually socially isolated from the world of work, making these children feel that they belong to the career world is also necessary. The sense of belonging to the working community is expected to build their confidence in pursuing their interest.

### 1.3. Community in the Digital Era

In a broad view, the community has the elements of geography, and common interest (Tu and Corry 2002). There is a proverb that says, "it takes a village to raise a child", which implies that children learn from their community, and the community should provide an environment where children can grow and learn. However, with globalization and the development of technology, a community is no longer limited to the physical boundary. Especially in the context of learning, the element of location becomes less important compared to the aspect of common interest.

Ito et al. (2013) suggested that new media can potentially expand engagement, accessibility, social support, and diversity in enabling young people to link, inte-

grate, and translate their interests across the academic, civics, and career-relevant domains. With technology, children can build their identity within their community and be exposed to wider social communities across interests and expertise. The OECD also encouraged ICT-based, self-service career guidance delivery to reach disadvantaged groups (OECD and Staff 2004).

#### 1.4. Research Objectives and Questions

This research aims to design a community-based career exploration service that promotes aspiration in children who live in areas with less access to role models. I developed a learning module for career exploration in rural areas, a series of content creation workshops, and a local participation workshop to provide a technology-supported career exploration corner for schoolchildren aged 9 to 13 years old who live in disadvantaged areas as well as encourage linkage between children, their community and the world of work. To reach this research goal, the questions to be answered in this study are below.

- 1. What are the key components in creating a career exploration program that promotes aspiration in children who live in disadvantaged areas?
- 2. What are the roles and competencies needed from every stakeholder to be actively involved in the community?
- 3. What are the key experiences that need to be provided to support learning and interaction among the community members?

#### 1.5. Research Methodology

To answer the questions above, the research is conducted with the Community-based Participatory Research (CBPR) method, where collaboration is critical to the design process (Leavy 2022). Specifically, the researcher is to take a stance as the principal designer and develop the service based on the input from the target community.

#### 1.6. Research Contributions

- 1. Application of career exploration for rural children utilizing immersive media
- 2. Emphasize the importance of centralized learning space for inclusive technology-supported learning in rural areas
- 3. Fostering community involvement to support children's career development
- 4. Produce a manual for accessible, replicable, and sustainable career exploration service for disadvantaged children

#### 1.7. Terminology

The special terms used in this study are listed below.

- Information and Communication Technology (ICT) refers to the technology used to provide access to information through telecommunication technology or the Internet.
- 360° Video is a panoramic video where the user can control the view in all directions.
- IN360° Project is a community-based career exploration service targeting children in rural areas. The name IN360° comes from the word "Inspiration" and the use of "360°" technology to deliver the information to the children.
- Career Exploration The process of exploring various career experiences following components specifically designed for children in rural areas.
- Exploration Corner is a physical space in a rural area designed for children to experience Career Exploration.
- Video content refers to the 360° video content created by Co-creators and Role Models to deliver children's career experience.
- Visual Journal in this research refers to the reflection method using hand drawing and writing.

1. Introduction 1.7. Terminology

• Mission Card contains a challenge designed for children to exercise the skills and attitudes mentioned in the video content within a daily-life setting.

- Corner Facilitators are volunteers living in the same area with the children who facilitate the operation of Exploration Corner.
- Content Creation Workshop is a community-building method involving the creation of IN360° video contents by Co-Creators and Role Models.
- Role Models are working people who share their career experiences to inspire children in rural areas.
- Co-creators are university students working with Role Models to create IN360° video content.
- Local Participation Workshop is a community-building method involving the creation of Mission Cards by parents and teachers.
- Workshop Facilitators are volunteers with expertise in Design Thinking and 360° video production who facilitate the operation of Content Creation and Local Participation Workshops.

## Chapter 2 Related Works

### 2.1. Career Exploration for Elementary Schoolchildren

The word "career" is closely related to the world of work. However, Manitoba Education Citizenship and Youth (2005) argued that a career is not limited to just a job, instead "the combined total of a person's lifelong experiences including their education, different jobs, family life, friendship, community activities, and leisure choices" (as cited in (Hodgetts 2009)). Learning about someone's career is not limited to knowing their current position and job description but includes their journey up to that point.

Career development programs often concentrated on the later adolescence to early adulthood stage and neglected the childhood stage as it is still far from the decision-making period. In recent years, more people have been interested in the importance of child career development (Watson and McMahon 2016). Chambers et al. (2018) recommended early intervention as a cost-effective way of raising children's aspirations and broadening their horizons. He also suggested that at the elementary school level, the focus should not be on career advice yet (Chambers 2018). Similarly, the Australian Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCCEECDYA) also released a blueprint for career development that covers four developmental phases from early childhood to adult (Australia 2010). One of the competency areas identified by MCCEECDYA is Learning and Work Exploration. The Phase 1 (Kindergarten-Primary School) of Learning and Work Exploration covers three competencies: (1) Discover lifelong learning and its contribution to life and work, (2) Understand the nature of career information, and (3) Discover how work contributes to indi-

viduals' lives. The competencies imply that in this phase of career development, children should focus on discovering the impact of a job on someone's life or other people's lives and how the things that children learn now could contribute to their life in the future. More specifically for the target children of this research, Gottfredson's theory theorizes that the development of children's aspirations in stage 3 (9 to 13 years) is based on social valuation before evolving into unique personal characteristics in stage 4 (above 14) (Gottfredson 1981). This stage is the ideal age for children to explore careers as a foundation of their career development before developing their unique selves.

#### 2.1.1 Career Exploration Initiatives for Elementary Schoolchildren

This section explores existing programs providing career exploration for schoolchildren as a reference point for how career exploration has been presented.

#### Kelas Inspirasi

Kelas Inspirasi (KI) or Class of Inspiration is an effort initiated by the alumni of "Indonesia Mengajar" [Teach for Indonesia] (Inspirasi 2016). Through this program, working people from various backgrounds are taking a scheduled one day off to visit and share their profession with elementary school students in suburban areas. They call this activity Hari Inspirasi [Inspiration Day]. The elementary school welcomed the movement, and the students were enthusiastic about the visit. However, this community also faced some problems regarding access to location, rejection from schools, and the issue of licensing (Bosma and Firdaus 2017).

#### Komunitas Inspirasi Jelajah Pulau

Komunitas Inspirasi Jelajah Pulau (KIJP) or Island Hopper is the sister community of KI that is focusing on a more marginalized location: the small islands of Indonesia (Pulau 2014). Not only do the volunteers give students a lot of new examples of future jobs, but they also interact with the local community and help



(Source: Facebook Post of Kelas Inspirasi (Inspirasi 2022))

 $Figure \ 2.1 \ Activity \ of \ Kelas \ Inspirasi$ 



(Source: Facebook Post of KIJP (Pulau 2017))

Figure 2.2 Activity of Komunitas Inspirasi Jelajah Pulau

map local potential in the area. However, the implementation of these activities in the small islands is faced with distance, mobility, and time constraint.

#### 13hw

13hw or 13 歳のハローワーク [13 Years Old Hello Work] is a website containing information about various jobs for children above 13 years old in Japan (Athelete 2005). This platform was published in 2015 and is based on a book with the same title released in 2003 (Murakami and Hamano 2003). While this website's database is abundant and there is a forum where children can send questions to the workpeople, the website is created for the general audience and not catered to a specific target, like children who live in rural areas.



(Source: Website of 13 歳のハローワーク (Athelete 2005))

Figure 2.3 The platform of 13歳のハローワーク

#### Kidzania

KidZania is an interactive miniature city made for children 1-14 that provide various job role-plays (Kidzania 2022). KidZania facilities are available in many parts of the world, and they collaborate with many industry companies. However,

by the nature of the facilities, geographically and financially, the experience does not apply to children who live in disadvantaged areas.



(Source: Website of Kidzania (Kidzania 2022))

Figure 2.4 Interior of Kidzania

## 2.2. Combining Digital and Traditional Learning Methods

Technology and new media can overcome the limitation in time and mobility and, simultaneously, promote a sense of connectedness in the community (Ito et al. 2013, Tu and Corry 2002). A lot of research supported the use of Information and Communication Technology (ICT) for inclusive learning in rural areas (Chinapah and Odero 2016, Pokorska 2012). A study on developing social networks that encouraged participation in lifelong education in rural women helped them gain confidence, creativity, and leadership qualities (Pokorska 2012). And Chinapah (2016) recommended using diverse ICT-based solutions to promote skills development and training within non-formal and informal settings. However, considering the infrastructure and technology available in the local area, figuring

out the right balance between the utilization of technology and traditional learning method would be crucial in ensuring the learning operation.

#### 2.2.1 Immersive Learning Using 360-degree Video

The process of finding interest is lifelong and ever-evolving. Immersive Virtual reality (IVR) as a learning source is believed to help develop re-engagement to content over time (Makransky and Petersen 2021). Knogler (2015) also supported the idea that the use of IVR may also elicit a short-term state of wanting to know more (Knogler et al. 2015). Social presence is significant in the online learning environment, especially in an asynchronous system where there is a lack of direct communication. Immersive media is beneficial in reintroducing some of the crucial tools that exist in the traditional educational space, like presence, immediacy, and immersion (Bronack 2011).

Among many technologies categorized as immersive, 360° video is one of the more accessible technologies compared to Virtual Reality (VR), as a mobile device and a 3-DoF device like Google Cardboard are sufficient to enjoy the experience. While 360° video can also be enjoyed through a flat screen, enjoying 360° video contents in its VR condition showed a significantly higher rate of enjoyment and interest compared to the flat screen (Snelson and Hsu 2019). Because of the low barrier of the technology, 360° video is often used in classrooms or learning environments. An example of the use of 360° video in religious studies classroom resulted in students valuing the experience, stating that it helped them deepen their knowledge of religions, promoting a sense of presence, and eliciting feelings of empathy toward other religions (Johnson 2018).

Creating a learning experience using storytelling in 360° video requires different techniques compared to the traditional two-dimensional (2D) video. Kavanagh (2016), in their case study, identified some problems that occurred when creating educational videos in 360° video. Some that could be highlighted are the point of view (POV) and directing the attention (Kavanagh et al. 2016). In a 360° camera, the lens position represents the viewer's eyes. This nature also influences the common use of first-person POV in 360° video (Elmezeny et al. 2018). Thus the awkward placement of the camera and the actors could affect the viewer's comfort when watching the video in its VR state. But when the actors interact

with the camera like how they would interact with a person, it could give the illusion of interaction (Elmezeny et al. 2018). Because 360° video is a panoramic video where the viewer can control their view as they like, it might lead them to unintentionally lose track of the main storyline when exploring the spherical environment (Kavanagh et al. 2016). Elmezeny (2018) suggested that having focused characters and storylines and using audio-visual direction cues can help direct viewers' attention (Elmezeny et al. 2018). But Elmezeny also emphasized that to gain the full advantage of 360° video, the director should not overly restrict viewers' field of view like traditional video (Elmezeny et al. 2018).

#### 2.2.2 Visual Journaling for Reflection Method



(Source: Drawing the Future report (Chambers et al. 2018))

Figure 2.5 Example of children's career reflection.

While immersive technology helps engagement in the learning content, reflection as a way to extract meaning from experience (Boud 2001) could aid the comprehension process. Journaling is one of the practices that is often used as a reflective method in learning new material (Chang and Lin 2014). Journaling is believed to help us look more closely at a subject and see things from an unexpected perspective (New 2005). Furthermore, using a combination of visuals ad

text in its manual form instead of the machinations of a computer encouraged students to be active learners and practice critical thinking (New 2005, Hash 2021). Similarly, a worldwide survey on primary school children's aspirations also used drawing to draw information from the children (Chambers et al. 2018). Some of the reasons that the report mentioned are the ability to help children tell a better story, to encourage children who are usually shy, and to avoid intimidation from other people, especially teachers or adults.

#### 2.2.3 Gamification in Children's Learning

A gamification is an approach that uses game features in other settings (Faiella and Ricciardi 2015), in this case, learning. It is recommended to use gamification in activities that include repetition to elicit interest (Faiella and Ricciardi 2015). Gamification in learning has been proven to benefit the learning outcomes from a cognitive, motivational, or behavioral perspective (Sailer and Homner 2020). Among many game elements used in children's education, challenge and achievement are some of the most popular and present within (Nolan and McBride 2014, Nand et al. 2019). Moreover, when the challenge is connected to the real world, it brings excitement and engagement to learners (Johnson et al. 2009).

#### 2.3. The Value of Physical Gathering Place

While the digital solution helps bridge children in a more secluded location with the source of information from the outside community, a physical center in the rural area is deemed to bridge physical and social interaction in the society (Svendsen and Lind 2009, Svendsen 2013). Similar to the concept of The Third Place, an accessible public space outside of the home and work or school that provides experiences other than the two fore-mentioned places (Oldenburg and Brissett 1982). This space is believed to give the social interaction that could lead to knowledge sharing and collaboration (Oldenburg and Brissett 1982, Brown 2017). Considering the difference in learning supporting tools available in every household, a base or learning center that provides technology-based solutions could be helpful to expand the inclusivity of learning opportunities for the local people (Sharma 2014). A physical gathering place could also serve as the entrance for the outside

community to form a long-term partnership with the rural communities (Hardy et al. 2019).

Among many places available in the rural areas, the technology-supported physical space for non-formal learning could be installed in existing Telecenter (Toyama 2010, Yasya 2020, Brown et al. 2016), public spaces like public library (Svendsen 2013), and mosque (Cheema et al. 2014), privately owned space like coffee shop (Afifah 2021), and many other places depending on the characteristic of the village. All these places possess similar characteristics, are accessible to everyone, and are the breeding ground for bonding among the local community.

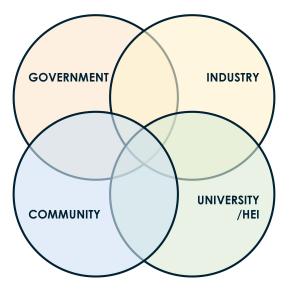
## 2.4. Support Community for Learning in Rural Areas

The community has many vital roles in children's learning, from contributing to the development of children's identity (Thanapornsangsuth and Holbert 2020) to providing resources and safe spaces for learning (Ito et al. 2013). Support from the community (e.g., peers and parents) is also more likely to be Elementary students' resource of motivation to engage in learning for those who are lacking intrinsic motivation (Martins et al. 2021). Furthermore, the community's involvement also affects the sustainability of technology-supported learning in rural areas. A study on the use of Information and Communication Technology (ICT) for education in rural areas in Indonesia mentioned that ICT solutions for rural areas need to be built by empowering local resources with the partnership with many stakeholders (Warsihna et al. 2013).

#### 2.4.1 Community Characterization

Community comes in many different forms, and definitions (Brook and Oliver 2003). In this research, the community is a part of a shared effort to support children's career exploration. It should be a "place" in which the children and other community members feel a sense of connectedness and belonging. Children and people from the world of work are the two apparent actors in this community. However, as promoted in the Quadruple Helix model, the involvement of higher

education institutions, enterprises, government, and communities, is crucial for knowledge-based development and social innovation solutions in rural and less-favored regions (Figure 2.6) (Kolehmainen et al. 2016, Nordberg et al. 2020). In these areas, sufficient educational institutions, industries, and local government may not be available to support students' career exploration. This is where the neo-endogenous approach, which promotes the empowerment of local resources, combined with a network to the more extensive community outside of the locality (Ray 2006, Gkartzios and Lowe 2019, Lowe et al. 2019), would strengthen the learning community for the children.



(Source: Quadruple Helix model (Kolehmainen et al. 2016, Nordberg et al. 2020))

Figure 2.6 Quadruple Helix model in rural development.

#### 2.4.2 The Sense of Community

The purpose of this study does not stop at bridging the access of information for children in disadvantaged areas to the evolving world of work. It also aims to expand the future opportunity that is still limited in the place where they live. Hence a sense of community among every stakeholder in the community plays an essential role in building a long-term commitment toward fulfilling the members' 2. Related Works 2.5. Summary

needs (McMillan and Chavis 1986). McMillan and Chavis (1986) proposed four key elements to the sense of community, including (1) Membership, (2) Influence, (3) Integration of Fulfillment of Needs, and (4) Shared Emotional Connection (McMillan and Chavis 1986, McMillan 2011). Several elements support each sense of community element (McMillan and Chavis 1986, McMillan 2011) (Table 2.1).

Table 2.1 The Elements of Sense of Community

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Boundaries that separate oneself from others

Emotional safety

The sense of belonging and identification

Common symbol system

#### Influence

Individual influence over and in the group

Community influence on individual member

Community norms and conformity

#### Integration of Fulfillment of Needs

Fulfillment of member's need

Reinforcement to belong

Shared value

#### **Shared Emotional Connection**

Members must share quality time

Time symbolized in rituals and traditions

A spiritual bond emerges from shared history

#### 2.5. Summary

From examining the literature, career exploration at the elementary school level should focus on broadening their aspirations and not too specific on career advice. Children explore careers by discovering the social value of jobs and their correlation to learning and their lives. Several efforts to promote aspiration in rural children face the limitation of time and mobility. The use of new media and ICT can help overcome these limitations. Among many technologies, 360°

2. Related Works 2.5. Summary

video is a relatively affordable technology to connect children in rural areas and the world of work. Combined with other learning methods like visual journaling and gamification, it is believed to be beneficial to children's exploration process.

For an ICT solution to work sustainably in rural areas, some things to note are the existence of a physical learning center and the partnership of various stakeholders. The location of this center can vary based on the culture and available infrastructure in each rural area. The availability of devices in every household is very diverse in rural areas. To ensure that everyone can have the same learning opportunities, it is suggested to provide technology-based solutions in a centralized location that everyone can access.

While the development of digital technology is beneficial for rural education, the community's support is essential to ensure the sustainability of the solution. The community should empower local resources while combining them with the community outside rural areas. To build the support community, the stakeholders involved must have a sense of community, including membership, influence, shared goals, and shared emotional connection. Designing a community-building method that facilitates stakeholder involvement in children's exploration is one of the priorities of this research.

Lessons learned from the related works and literature are the basis for designing IN360° Project, a community-based career exploration service for children who live in areas with less access to role models; the concept of IN360° is to provide career exploration for children to explore and connect with workpeople through immersive technology and experience the way the working world can relate to themselves and their daily life. Approaches that include centralized learning space and support community building are among the essential elements in ensuring the sustainability of this service in the long run.

## Chapter 3 Design

#### 3.1. Design Concept

The main aim of this research is to promote aspiration in children who have less access to Role Models sustainably. I propose IN360°, a community-based career exploration service that provides technology-supported career exploration to encourage linkage between children, their community, and the world of work. The name of IN360° is a combination of the word inspiration and 360°, which represents thorough career exploration with the use of 360° video technology. The service utilizes the combination of digital and physical space to bridge the community of workpeople with children and the rural community where they live (Figure 3.1).

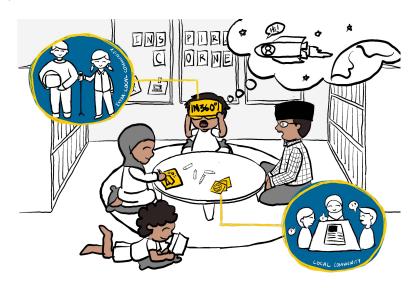


Figure 3.1 IN360° Design Concept

To ensure a sustainable service for rural children's career exploration, the guiding principles to design this service are:

1) Accessible to children The service shall be accessible in both senses of location and technology. Based on the literature review, internet technology reduces the geographical barrier, and 360° video gives an immersive experience and encourages re-engagement. However, centralized physical access is also necessary when developing digital solutions in rural areas. Providing low-barrier technology is also essential to avoid technical intimidation and ensure the sustainability of the service.

The career exploration combines digital and analog learning activities in a repeatable module. Hence, IN360° is an after-school fun activity provided in an Exploration Corner facilitated with the internet and easy-to-access device like a mobile phone. The Corner may be located strategically close to where the children hang out or often visit after school.

- 2) Connected to and supported by the community To ensure the sustainability of the solution, the service involves the stakeholders surrounding the children and the people from the world of work. Each community member should have their role and understand how they can contribute to children's career exploration journey. Vice versa, children's career exploration should connect back to the community. By building a Sense of Community among these stakeholders, the service is expected to be able to run sustainably on its own.
- 3) Easily replicated and sustainable For the service to make an impact and be accepted by the community members, it should follow a certain standard and be easily replicated. The development and implementation of the service should empower existing resources as much as possible. To reach as many people as possible, every element should also be easy to apply and replicate by the community members.

#### 3.2. Design Overview

To achieve the project's goal, the design was divided into two sections. The first part was the Career Exploration Design, which includes learning components and materials. The second section consists of the approaches for sustainability, which were Exploration Corner Design and Community Building.

The Career Exploration design aims to develop a practical career exploration module to promote aspiration in children in rural areas. Children can explore various career journey, see how it impacts one's life and how the values and skills from the job are very close to their daily life. The learning components and materials were designed from 2017 to 2021 with the involvement of children in Indonesia and Vietnam. Observation and post-activity surveys were conducted and analyzed to improve the Career Exploration program.

For the approaches toward sustainability, I designed an Exploration Corner. This Corner was a learning center where Career Exploration components were implemented. The Exploration Corner aims to expand the learning opportunity and provide a knowledge exchange space for all children in the local community.

The second sustainable approach was Community Building, which aims to design the community to support children's exploration process and build a Sense of Community among the stakeholders of IN360°. Through several activities designed to facilitate stakeholder involvement in the community, we have collaborated with stakeholders from Indonesia, Japan, and Vietnam since 2016. Post-activity surveys and interviews were conducted and analyzed to improve the community-building programs.

#### 3.3. Career Exploration Design

#### 3.3.1 Target User

The main target of this research was children ages 9-13 or grades 4-6 of elementary school who live in areas with less access to Role Models. The regions being said are mainly but not limited to rural areas with limited transportation access but have the means to access the internet.

These areas usually have a homogenous community with the main livelihood

coming from the direct use of natural resources like farming, fishery, mining, etc. Some might also pursue work in the secondary sector, like manufacturing. The children in these areas tend to have limited aspirations and low confidence in learning. The transition from elementary school to middle school is often a crucial period for them to either continue school or directly join the workforce, making the time before this transition a critical period for intervention.

Even though many rural areas are already provided with internet infrastructure, the speed and stability of the connection are often unreliable. Moreover, access is not evenly distributed as not every household is facilitated with an internet device. Most children in these areas neither have their gadgets nor many adults who can guide them in accessing the internet productively.

#### 3.3.2 Exploration Component Design Process

The Career Exploration components were designed through the exploration with children in Pramuka Island, Indonesia (2017), Thien Binh Orphanage, Vietnam (2019), and Panglungan Village, Indonesia (2021). Different combinations of components, with thoughtful use of digital and analog media, were implemented and evaluated in each exploration (Figure 3.2). The communities were chosen based on their limitations, either from the geographical or socio-economical point of view.

The first exploration was conducted with 11 children aged 9 to 12 from Panggang 2 Pagi Elementary School. The school is located at Pramuka Island, a small island that is a part of the Seribu Archipelago in the north of Java Island, Indonesia. In this exploration, I designed and implemented an Experience component. I improved the Experience component and created a Reflect component in the second exploration. This exploration involved eight children aged 8 to 13 who live in Thien Binh Orphanage, Vietnam. While the orphanage is not necessarily located in a rural area but rather a suburban area, the socio-economic condition of the children forced them to be in a disadvantaged position. I facilitated this exploration with the help of 3 volunteers from the Vietnam-Japan Institute of Technology (VJIT). An improved design with Interact and Practice components was implemented in Panglungan Village, located on the slope of Anjasmara mountain, Indonesia. It was conducted with 33 children aged 10 to 13 years old. In

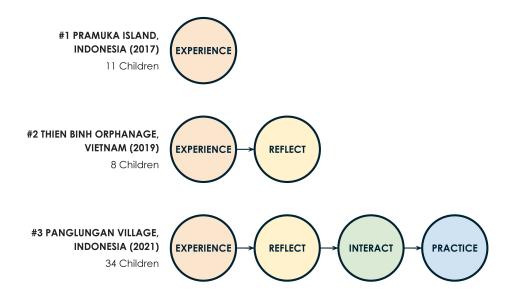


Figure 3.2 Components implemented in each exploration.

this iteration, the exploration was fully facilitated by a volunteer from the village without my intervention.

The design of each component is explained in the section below.

#### 3.3.3 Component 1: Experience

The purpose of the Experience component was for children to explore various jobs and career paths. I brought working person's stories and experiences to the children using 360° video. Using storytelling methods and panoramic views in 360° video, children could have a real-life-like experience of visiting the actual workplaces and learning directly from the Role Models from their place. Hence, they could feel less boundary between their world and the working world. Moreover, enjoying 360° video required less expensive tools when compared to VR.

I designed the content formation in 360° video that not only delivers information but also give an immersive experience where children can interact with a Role Model, feel the working atmosphere in the video, and be inspired by them. The video was a semi-documentary with a real-life experience packaged in a compelling storyline for children. The video contains information about the job, the working process, the important skills and values of the job, and encouragement from the

Role Model while giving some workplace tour experience with children and the Role Models as the main characters.

The video was created from the children's PoV, where the camera lens act as the eyes of the children. A Role Model was expected to guide the children to explore the workplace. The phase of the video should give children enough time to explore the environment, but at the same time, keep their attention on the storyline and explanation. The appropriate duration was assumed to be between 5-10 minutes. Visual cues (character movement, gaze, text or graphics, lighting, special effects, camera movements, etc.), audio cues (character talking, sound effects, music, etc.), and gimmicks can direct their attention. Most importantly, as the video targets children, the story and language used in the video must be simple and easy to understand but also fun.

#### Experience Prototype 1: Pramuka Island, Indonesia (2017)

In the first prototype of the Experience component, 5 video contents were provided. The videos included the professions of game illustrator, video maker, restaurant owner, professor, and venture company owner (Figure 3.3). The video duration ranged from 4 to 7.5 minutes. Each video contained an explanation of the job and touring around the workplace. The explanation method varied from the Role Model talking to the camera, the Role Model being interviewed by university students or voice-over. Some of the videos also had gimmicks; for example, the video maker video used soap bubbles to play around at the beginning of the video, and the restaurant owner used a time-lapse technique to show the working process.

To evaluate the content and how children interact with the videos, an experiment was done on March 2017 on Pramuka island, Indonesia. Eleven children (6 girls and five boys) experience the video individually. Each kid was told to choose two videos from the five options available, one after another. The information given to them was only the job title and video thumbnail. After each experience, they answered some survey questions related to their immersion and understanding of the learning content. The experiment was also recorded with a video camera for more detailed observation after the experiment.



Figure 3.3 Content options for Experience prototype 1.

Experience Prototype 1 - Result and feedback From the observation, the children enjoyed exploring the 360° environment. At first, they did not fully understand how to explore the video until they were instructed to look right or left. The instruction encouraged them to explore the videos in all directions, which they found very interesting. The children tend to first pay attention to the person talking to the camera before exploring the environment surrounding them and then back to the talking person. The soap bubble gimmick also got them to turn their head around to look at the soap bubble. One of the children also found the cooking process from the restaurant owner's video interesting as it was fast-forwarded. When asked which part of the content was attractive to them, most mentioned something related to the working process. Most of them wanted to know more about this part, and some asked for the duration to be longer. The friendly and warm impression of the Role Model also caught the attention of one of the children. The language was also an essential element to be considered, as one of them said that some foreign words were difficult to understand.

From the five videos, videos about a restaurant owner and a professor were chosen by many kids. Even though the children did not have much information about the two jobs yet, the title was quite familiar to them compared to the others. Meanwhile, the video about a venture company was not chosen at all. One of the children was made aware that her perception of a professor's job was different from what she knew. She thought that a professor mixed liquid and built machines in the laboratory, and she said, "Turns out, a professor is someone who teaches."

The result showed that the children liked the novelty of the 360° environment and were eager to watch more in-depth videos. It also promoted initial changes in children's understanding of the jobs. The result of the interaction between the children and the video was compiled as a guideline to create another video in the future. And while the video helped children find new information and break their misconceptions, the number of professions was minimal. The impact of the video on their aspiration could not be seen yet. Students also suggested that the working process part be more detailed and longer.

**Experience Prototype 1 - Improvement** From the result of the first test, the main improvements were:

- Longer video duration, especially the working process part
- Emulate video interaction based on the practical examples in this experiment
- Use clear and simple language for explanation
- Add a closing message from the Role Model at the end of every video
- More variety of content, preferably a more relatable one

## Experience Prototype 2: Thien Binh Orphanage, Vietnam (2019)

The second prototype was experimented with as a part of a career-building workshop in Tienh Binh orphanage, Vietnam. This time, the videos were chosen by the workshop organizer according to the theme of the workshop (Figure 3.4). The theme environment and the videos related to nature were chosen as it was deemed that children are familiar with this topic. The two videos were about jobs related to a coffee farm and were 7 to 8 minutes long. Instead of gimmicks, the videos carefully used visual and audio cues to direct children's attention, referring to the guideline in Appendix B.3. For example, the character in the coffee quality controller video moved his position when the scene changed to encourage the viewer

to turn their head. Another example used an audio cue from the supporting character calling the viewer from the opposite side of the main character, again to trigger head movement from the viewer. Both videos utilized a simple storyline of exploring the coffee farm while explaining each profession in easy vocabulary. Because the original videos were made in Indonesian, audio dubbing in Vietnamese was embedded.





(a) Coffee Quality Controller

(b) Coffee Roaster

Figure 3.4 Content options for Experience prototype 2.

The workshop was conducted on November 2019 with eight primary school children aged 8-13. They were divided into four groups, where the younger children paired up with the older children. Each kid watched one video while their partner watched the other video. Surveys and observation were done to evaluate how the children interacted with the videos in the workshop format.

Experience Prototype 2 - Result and Feedback The observation showed that children could explore the video in all directions through the cues given in the video. They also said that they understood the message in the video. However, the workshop format was too long for the younger kids. The inability to choose the video was also deemed limiting when the project's purpose was to expand children's horizons. While it did not explicitly refer to the experience component, the workshop helped one child to think they could have a bigger dream. Not only the children but the activity also perked the interest of one of the observers. He said "I want my (university) students to be Role Models for the children in the future".

**Experience Prototype 2 - Improvement** From the result of the second test, the main improvements were:

- Return to individual format for broader exploration
- Reduce activity duration to enable repetition in the long run
- Use the main message of the video as the video title

## Experience Prototype 3: Panglungan Village, Indonesia (2021)

For the third experiment, children could choose from 10 videos. The duration of the videos ranged from 4 to 8 minutes. They were categorized into five categories: (1) Nature, (2) Business, (3) Education, (4) Culinary, and (5) Art and Design. In each video, information about the job title, the message of the video, the video category, and the video thumbnail were given to help children choose (Figure 3.5).

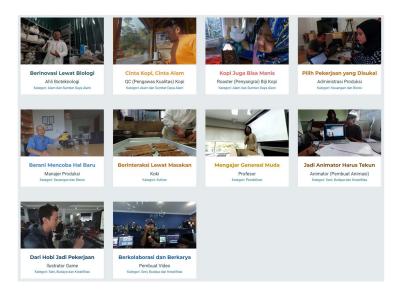


Figure 3.5 Content options for Experience prototype 3

The third experiment ran on March 2021 in Panglungan Village, Indonesia, was conducted for two cycles. Each cycle consisted of 4 days, for 2-3 hours in the afternoon each day. A total of 34 children, with an age range between 10-13 years old, joined the activities. They chose and watched one video on the first cycle and watched another video in the next cycle if they felt like returning to the second

cycle. Children's interest in exploring the contents and how they chose the video to watch were evaluated through observation and post-activity surveys.

Experience Prototype 3 - Result and Feedback Thirty-two children were recorded to visit from the first cycle. Twenty-six (84%) of them came back to watch another video on the second cycle, and two new members joined. Moreover, 76% of the responses (n=60) said they would like to watch another video, showing high interest from the children. Videos in the category of nature were the most popular among children. From the information given to them, the children thought that the video title, which contains the video's message, was the most helpful element that helped them choose the video. This emphasizes the relevance of building the story based on the main message. However, many children wanted to share what they learned with their peers.

**Experience Prototype 3 - Improvement** While giving freedom to explore individually was necessary, based on the feedback from the children, the chance to learn together is also necessary. Instead of exploring one by one, having two children explore individually simultaneously could help balance individual exploration and instigate peer interactions.

# 3.3.4 Component 2: Reflect

After children experienced the workplace through the video content, they needed a way to internalize what they saw in the video. Verbal and non-verbal methods were explored to find the best way for children to reflect on their learning.

## Reflect Prototype 1: Thien Binh Orphanage, Vietnam (2019)

Initially, the verbal method was used for the reflection. The children were paired in a group, and after they watched the video assigned to them, I asked them to share the content of the video with their team members in their own words. Direct observation and video recording were used to evaluate how well children implement this method and how much they learn from it.

Reflect Prototype 1 - Result and Feedback From the observation, it could be seen that children were not used to expressing their thoughts verbally. While they could tell what the job was, it was difficult for them to organize and explain the information immediately. They tend to look shy and unsure when asked to retell the story to the other members.

Even though the verbal sharing did not work so well, from the self-awareness part of the workshop, where they were asked to draw their self-portrait, I found that children enjoyed drawing and crafting activities. They were eager to choose colors and imagine what their self-portrait should look like (Figure 3.6. Some of them started to wonder about their character and interest through the activity. Children could think about themselves, showing a potential use of drawing as an internalization method.



Figure 3.6 Children drawing a self-portrait

In line with this finding, the literature review also showed that journaling was often used to reflect. It could help children look more closely at a subject and focus their attention on the part they find interesting.

Reflect Prototype 1 - Improvement From the result of this experiment, the verbal method could not work very well with the children. For improvement,

instead of verbal communication, I used a nonverbal form like visual journaling for internalization.

## Reflect Prototype 2: Panglungan Village, Indonesia (2021)

The second prototype for the Reflect component utilized visual journaling. After they watched the video from the list provided using a 360° video cardboard viewer, children internalized the information in two steps. The first part of the journaling was to retell the story from the video in drawings. Children might draw anything that they find interesting or memorable. It might include the environment, the tools, the working steps, and many more. The second step was to answer a hypothetical reflective question "What do you have to do to be like the person in the video?".

Reflect Prototype 2 - Result and Feedback The observation and learning output showed that most children could follow directions. They could express the tools, environment, and working steps they learned from the video (Figure 3.7. They also internalized the message that the Role Model wanted to deliver. For the production manager video, which message was always to try new things, one child commented "I should learn to make my creation". The children also realized the importance of learning or training; some of them could even identify who they could learn from. One of them said "I should learn from the (coffeemaking) expert" and the other said "I should follow someone who already knows how to make coffee and learn from that person." They were also made aware that different jobs require different skills. They said "(to be a chef) I need to learn how to cook" and "(to be a game illustrator) I need to learn how to make games."

While most children understood the activity's instructions, some struggled to express their thoughts. The facilitator guided the children who were struggling by asking some prompt questions.

Reflect Prototype 2 - Improvement To make children feel more comfortable expressing their thought, the topic of the drawing could be made into something more relatable to the children. Combining the idea of self-portrait from the first prototype, instead of just retelling the story in the video, the topic of the drawing



Figure 3.7 Children's drawing from the Reflect part

could be about imagining themselves in the shoes of the Role Model. A journal template was created based on this new structure in the final design.

# 3.3.5 Component 3: Interact

An Interact component was designed as part of community building and to make children feel connected with other stakeholders. The children might interact with the Role Model and their peers through this component.

## Interact Prototype: Panglungan Village, Indonesia (2021)

The prototype of the Interact component allowed children to interact with the Role Model by giving comments or questions in a written format. After they watched and internalized the video, they expressed their thought to the Role Models. Otherwise, if they had further questions they wanted to ask, they might do so as well.

Interact Prototype - Result and Feedback Initially, only half of the children wrote comments for the Role Model in the first cycle, but they were more

comfortable writing some comments or questions in the second cycle. From the result, most children wrote statements expressing their feelings about the video. Some of them also asked some questions, for example "Sir, why do we have to drink coffee when it is cold?".

An additional finding from the survey was that many children voiced their desire to share what they learn with their peers. Reflecting on peer interaction in the second experiment, the children might need some assistance to share their learning smoothly with each other.

**Interact Prototype - Improvement** From the result of this test, the main improvements were:

- Design a fun way to write comments using colorful stationery
- Using Visual Journal template to assist peer interaction

# 3.3.6 Component 4: Practice

After exploring the information and internalizing them, for children to feel even more connected to the world of work and recognize the benefit of their learning, children need to experience how the skills from the job can also be transferable to other parts of their life and vice versa. To make this activity fun for children, I designed some challenges in the form of Mission Cards that children can do at home. Each challenge or Mission Card was designed based on the video content provided to the children. The challenge was based on real-world tasks or school learning so that the participant could use the skill or attitude from the job in daily activities. The activity involved interaction with the people around children, like family and friends. Each mission card contained the details of the video, instructions for the mission, an activity report column, and a reflection column. Each activity was designed to take 2 hours of working time across one week. Once children completed the mission card, they could trade it with a sticker reward.

## Practice Prototype: Panglungan Village - Indonesia (2021)

Ten Mission Cards were designed for the prototype for Career Exploration in Panglungan Village. Once the children were finished with the exploration at the corner, they were given a challenge to do at home that was connected to the video they watched. For example, the message from the Coffee QC video was "we have to take care of our nature". The Mission Card for this video was designed based on the activity that was often used in science class which was "growing a sprout" (Figure 3.8). Children grew sprouts and watered them with different kinds of water for a week. Every day, they observed the difference in growth between the sprouts and guessed the reason for the phenomenon.

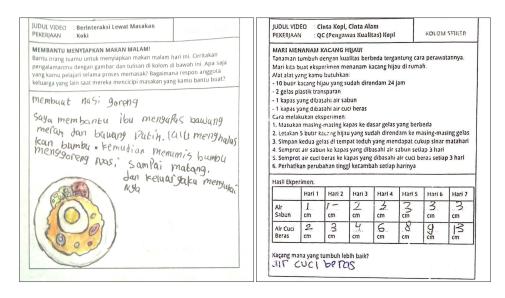


Figure 3.8 Finished mission cards from the Practice part

The feasibility of the Mission Card was evaluated using a pre-survey and analyzing the learning output.

Practice Prototype - Result and Feedback The survey data showed the participants were excited to do the mission card at home. Twenty-four entries said "I am excited," and another 11 said, "I am very excited". More than 80% of the entries said they were confident in completing the mission card. One of the reasons was "it looks easy to do." One child was in for the reward, and the other thought it was in line with their future aspiration. The other did not mention a specific reason but expressed confidence by saying "I am sure (I can complete this)". However, opposite to the spirit shown in the questionnaire, only 18 mission

cards were returned.

Fortunately, through the reflection section in the Mission Cards that were collected, it could be seen that the activity helped children experience the value of the job. One of them took a Mission Card related to the restaurant owner who said he communicates with customers through his cooking. From the learning output, the kid expressed "I helped my mom cook *Nasi Goreng*, and my family liked the food".

**Practice Prototype - Improvement** From the result of the Mission Card activity, some components that could be improved were:

- More involvement of parents in the mission card implementation
- Make mission card design as a part of the local community building

## 3.3.7 Summary of Career Exploration Components

According to the observation, survey, and feedback, the design of IN360° engaged children in the exploration and encouraged them to explore more. The children can also internalize some of the information and modify it according to their needs. Feedback from the iteration was analyzed and considered for the final Career Exploration component designs.

#### Learning Components

Choosing an interest is a very personal process and requires repeated exploration. The Career Exploration in this study is designed to cater to individual learning instead of group learning while offering peer interaction. The module is to be completed in a short duration to enable repetition. There are four components to this learning module. They are (1) Experience, (2) Reflect, (3) Interact, and (4) Practice.

Component 1: Experience. In the Experience component, children experience various Role Models' working lives in 360° video format. They choose one video content provided by IN360° that they want to watch each time. Then, they



Figure 3.9 Career Exploration components

watch the video and "interact" with the Role Model in the video. The facilitators are to ensure the safety of children while enjoying the 360° video experience.

Component 2: Reflect. After watching the video, children internalize the experience using the Visual Journal template to reflect on what they just watched. The template consists of two parts. The first part is a reflective drawing "If I were...", where children imagine how it would look like if they had the same profession as the Role Model. The second part is reflective writing "I should learn or do...", where children contemplate the things that they can learn or do now to be like the Role Model. Children are provided with some drawing tools and given the freedom to express their thoughts.

Component 3: Interact. In this component, children interact with Role Models and peers through comment writing and verbal communication. To the Role Model, children write comments or questions related to the video content or the job. To their peers, they share their drawings from the Reflect step.

Component 4: Practice. The practice step is when children exercise how skills in this job can be transferred into daily life. With the supervision of their

guardian at home, they do the challenge using the instructions in the Mission Card. For every completed mission, they may receive a reward.

## Learning Materials

There are three learning materials to be designed for the exploration process. They are 360° Video Content, Visual Journal Template, and Mission Card.

1) 360° Video Content The 360° video content is adopted in the Experience component. The purpose of the video content is not only to deliver information about the job but, more importantly, to give a workplace experience and tell an inspiring story of a real working person. Every video contains one key point or statement that guides the story. Based on that key point, the video is expected to give an experience surrounding (1) the background or career path of the Role Model, (2) some interesting working processes, (3) important skills that are essential to the job, (4) any challenge or social impact or value of the job, and closed by (5) an encouraging message from the Role Model.

With a recommended duration of 7 to 10 minutes, the video starts with an introduction, followed by a building act, climax, and eventually a closing or resolution. To increase the presence of Role Models, the video is created in the first-person PoV, where the story is driven by the main characters (viewer and Role Model) and focused on and around the Role Model's workplace. Using audio and visual cues, the viewer may have a sense of interaction with the characters and environment in the video.

- 2) Visual Journal Template The template is designed to facilitate children's reflection. It consists of two parts. The first part is a "If I were..." reflection in the form of drawing, and the second part is a "I should learn or do..." reflection in the form of writing (Figure 3.10).
- 3) Mission Card The Mission Card used in the Practice step is designed for each video to be done with family members or peers at home. The Mission Card is filled in with an instruction for a short and easy creative activity related to the job or message of the Role Model to show how the skills in the job are transferred



Figure 3.10 Visual Journal template

into daily life. Each mission card contains the details of the video, instructions for the mission, an activity report column, and a reflection column (Figure 3.11). The recommended duration for each activity is around 2 hours across a 1-week time frame. Once the children finish the mission, they return to the Exploration Corner or bring the completed Mission Card on their next visit to get a collectible reward.

# 3.4. Exploration Corner Design

The first sustainability approach was the design of the Exploration Corner. From the first and second iterations of the Career Exploration, I learned that an individual exploration that would give children the freedom to choose what they like is crucial to their exploration. Selecting an interest is a very personal and repeated process, and to facilitate as many children as possible, each exploration process must be done in a short period. Additionally, to facilitate repeated exploration, children should have a space to return to. While this space could be a digital space, considering the demographic in disadvantaged areas, designing a physical space that provides all the equipment necessary for the exploration could ensure

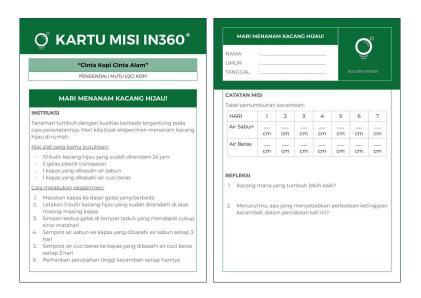


Figure 3.11 Mission Card example

the inclusivity of the program. The Exploration Corner must be a comfortable space for children; a place close to where the children hang out or often visit after school was preferable. Additional to the function of providing exploration space for children, this Corner was also expected to be the space for knowledge exchange and community interaction.

The Corner was designed to operate outside school hours, where children could explore careers while having fun with their peers. Weekdays in the afternoon or during weekends and holidays were some of the options. From the component design, Experience, Reflect, and Interact components were to be done at the Exploration Corner. The module for these three components was designed for 20 minutes, two children at a time. Therefore, for every hour the Corner was running, it could accommodate 4-6 children. The Corner was supported by internet technology and provided all the equipment required for Career Exploration. The basic equipment for this exploration included a mobile device, a cardboard viewer, earphones, and some stationery. Facilitators from the local community were present at the Exploration Corner to help children with their exploration process.

## 3.4.1 Corner Facilitation

As a method for the deployment of the service, the role of the facilitators was crucial. I arranged guidelines for the operation of the program in the Exploration Corner.

## Role of Facilitators

Facilitators presented at the Exploration Corner to help children with the exploration process. During the activity, the facilitators helped the children with the equipment and time management (Figure 3.12). It was also essential for the facilitators to provide a safe space and encourage children to express their thoughts throughout the exploration.



Figure 3.12 A facilitator helping the participant to watch the video

The facilitators for the Exploration Corner were people from the local community. Their role in the Corner was to assist children's exploration and ensure the safety of children during the activity. They helped children with the technical part and encouraged them to express their thoughts and have an open mind. The facilitators should be mindful not to do the activity for children, instead giving them prompts that could help them find the answer. Unlike how a classroom is

usually conducted, there was no right or wrong answer in the exploration process, so the facilitators should not judge or give negative remarks about children's thoughts. Instead, a conversation based on children's opinions could expand their understanding of the working world.

## **Supporting Materials**

A program guideline and supporting materials were provided to guide the facilitators in running the Exploration Corner (see Appendix A. The materials included the 360° video contents, corresponding Mission Cards, and a visual journal template.

## Equipment

A fundamental requirement to run the Corner was a 360° Video Viewing Set which includes a 3DoF VR viewer, a smartphone, and an earphone (Figure 3.13). The 3DoF VR viewer varies from a cardboard viewer to one made with more durable material or even has the headphone attached to the headset. One equipped with a gyroscope and accelerometer was more than enough for the smartphone. In addition, a space provided with an internet connection, fully or partially, would also be necessary. However, a backup plan should always be prepared in the case of an unstable connection or a blackout. For the rest of the activity, colorful stationery like markers and empty papers would help the activity run smoothly. And last but not least, some stickers or any other reward for those who completed the Mission Card was also required.

# 3.5. Community Building

Community support is essential for social innovation in rural areas. It should empower the local resources and connect them to the bigger community outside of the local area. Specifically, in this research, the community was to give continuous support in the exploration process and create bonds between children and the world of work. It would also benefit further career development once children find their aspirations.



Figure 3.13 360° video viewing set.

I designed several activities to facilitate community contribution to children's career exploration and build a Sense of Community among the members of IN360°. Based on the Sense of Community theory, I incorporated the elements of (1) role assignment, (2) shared goal, (3) purposeful making, and (4) stakeholder interaction.

# 3.5.1 Community members and roles

IN360° community involved stakeholders in the local area and extra-local. To build a Sense of Community, each stakeholder needed to understand the goal of the community and their role in achieving the goal. Below are the stakeholders I have identified to sustain the service in rural areas. In the local area, the members and roles identified are:

- Children as Explorers. Schoolchildren aged 9 to 13 years old, or equivalent to grades 4 to 6 students who have less access to career information. While acting as learners, children also bear the role of learning peers to the other children.
- Volunteers as Corner Facilitators. Teachers or volunteers from the local

area with digital literacy skills who can manage the Exploration Corner and assist children in their exploration.

• Parents as Guardian. The closest adults around children influence their career journey and decision-making. The role of parents or guardians is to accompany the exploration journey and give necessary intervention.

In the extra-local, the stakeholders are:

- Workpeople as Role Models. People working and have a minimum of 2 years of experience in the fields that require higher education or a certain level of skill mastery. Role Models are to share their job and career for the exploration by the children.
- University students as Co-creators. Undergraduate students who will soon join the workforce and would like to contribute to the children in rural areas. Their main role is to help deliver the Role Models' passions and stories in the form of 360° videos.

# 3.5.2 The Scheme of Community

I designed a scheme where all stakeholders were involved from the development to the implementation of the service (Figure 3.14). Work people and undergraduate students worked together to create the 360° video content. Children interacted with the work people through the Interact component in the exploration module. The local stakeholders, parents, were designing the mission cards based on the video content that had been created. Parents were also accommodating children in the execution of mission cards on the practice steps at home. Once the community is established and the stakeholders gain the competence they need through these workshops, the community can run independently.

# 3.5.3 Community Building Method

For every stakeholder to understand their role and be able to contribute to the career exploration process, I designed two workshops as a part of community building. The workshops were Content Creation Workshop to create the 360°

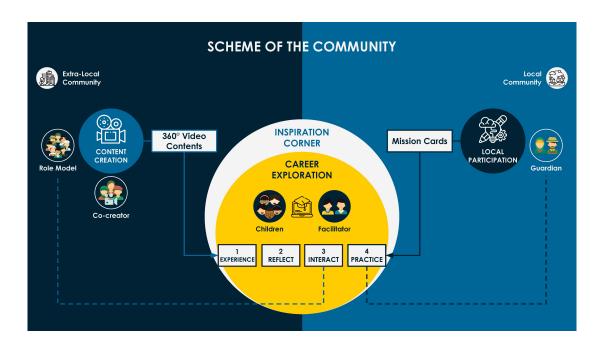


Figure 3.14 The scheme of IN360° Community

video content and the Local Participation Workshop to develop the mission cards. Each workshop incorporated shared goals and purposeful making activities to build a Sense of Community in every stakeholder. Through these workshops, the stakeholders were expected to understand their roles and share the same values related to children's aspirations. The purposeful making activity facilitated them to gain the competence that they need and make a contribution to the community (Table 3.1).

The Content Creation Workshop involved Co-creators and Role Models, with Co-creators as the main participants. The purposeful-making activity was based on a video production process; the steps in bold on Table 3.1 show the session where Co-creators interacted and worked together with Role Models. For participants to understand the goal of the activity and their role in the community, I included an Empathy session at the beginning of the workshop.

The second method was Local Participation Workshop. To build a sense of belonging from the parents, I designed a workshop following the design thinking process for parents from the local community to produce one of the learning

Table 3.1	Community	Building 1	Methods

Table 5.1 Community Dunding Methods				
Shared Goal Method	Purposeful Making Steps	Output		
Content Creation Workshop				
- Empathy	- Research & Interview	ning 360° video content		
	- Story Building			
	- Production Planning			
	- Field Production			
	- Post Production			
	- Presentation			
Local Participation Workshop				
- Project Introduction	- Ideation			
	- Prototype	Mission cards		
	- Iteration	Mission cards		
	- Presentation			

materials, the Mission Card. More details of the design of both workshops are explained in the section below.

# 3.5.4 Content Creation Workshop

## Workshop Participants

The workshop participants were university students as Co-creators and working people as Role Models. The primary participant was the Co-creators with multiple interactions with the Role Models through the workshop activities.

The Co-creators were university students who would soon join the workforce. University students are usually eager to learn something new and have a solid mindset to contribute to society. For this workshop, they were expected to join the whole session in the workshop as they worked together in groups. While previous video-making experience would be helpful, they were not required to have one to join the workshop. However, the grouping varied based on participants' self-evaluation of their video-making skills.

Role Models were working people with at least two years of experience in the field. The fields were expected from those requiring higher education degrees or

specialized skills. Good communication skills were helpful for video production, as Role Models were expected to guide children and explain their job in the video. However, the tools like script and narration could be used to overcome any difficulties in this portion of the production. The Role Models were expected to commit up to 6 hours of their week to the interview and video production, as well as the final presentation, when possible.

## Workshop Design

The Content Creation Workshop was designed to equip the Co-creators with sufficient skills in job storytelling and 360° video production while collaborating with Role Models. I developed an empathy session for them to understand the goal of the project and the purpose of the video they were creating. In this session, Co-creators learned about the characteristic of children in rural areas and empathized with the different conditions they had to overcome. In the video production part, the participants practiced the basics of video production, from collecting data, story creation, shooting, and editing, as well as the fundamental differences between 2D video production and 360° video production. They were provided with tools like worksheets and video shooting equipment to help them with the production process. Through this process, Co-creators and Role Models worked together to embody the project's value in the video they created.

Depending on their previous video-making experience, they were grouped into 2-4 people per team. If most participants were highly skilled, 2 team members were sufficient. Otherwise, more members with a maximum number of four were arranged. The participants were distributed evenly, so all teams had a similar level.

To improve the workshop program, I implemented the workshop with university students from various backgrounds in three iterations (Table 3.2). The first iteration in 2016 consisted of two workshops done with six students of Bandung Institute of Technology (ITB) from the Visual Communication Design (DKV) department and 10 Keio University, Shonan Fujisawa Campus (Keio SFC) students from the Policy Management department. The second one was done in collaboration with Mitani Sangyo Co., Ltd. in 2019. 19 students from the Vietnam-Japan Institute of Technology (VJIT) and three employees of Mitani Sangyo's branch

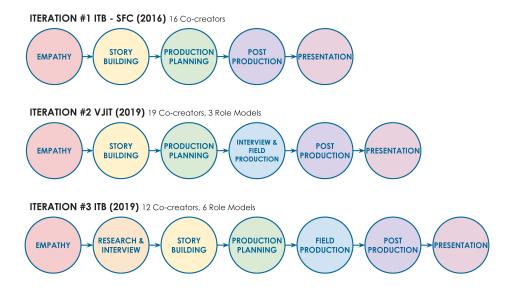


Figure 3.15 Content Creation Workshop design process.

in Vietnam joined the workshop. And the last iteration was conducted with ITB students in two different formats. The first was a collaboration with their Summer School program, while the second was operated remotely in an online setting. In both workshops, six people joined the program. And a total of 6 Role Models from 4 companies collaborated with the students. Different workshop formations were implemented from the iterations to find the best operation method to create the 360° video content while building the Sense of Community of the Co-creators and Role Model.

## Iteration 1: ITB-SFC (2016)

In the first iteration, two workshops were conducted. The first workshop was conducted with six students from DKV-ITB on August 27th and September 3rd, 2016, with a total duration of 8 hours. Most of them already have competence in storytelling, even video production, so 3 participants were distributed in each team. The second workshop was conducted every two weeks for six sessions from September 27th to December 6th, 2016. 10 Keio SFC students joined the workshop for the same total duration, with 3 to 4 team members per team.

The participants went through a brainstorming activity and discussion to ana-

Table 3.2 Content Creation Workshop Collaborators

Table 3.2 Content Creation Workshop Collaborators				
University Partner	Co-creators	Role Models		
Iteration 1: ITB - SFC (2016)				
ITB	6 people	Game Illustrator		
		Video Designer		
Keio SFC	10 people	Professor		
		Restaurant Owner		
		Venture Owner		
Iteration 2: VJIT (2019)				
VJIT	19 people	Production Manager (Mitani Sangyo)		
		Quality Controller (Mitani Sangyo)		
		System Integrator (Mitani Sangyo)		
Iteration 3: ITB (2019)				
ITB (Summer School)	6 people	Coffee Quality Controller (Klasik Beans)		
		Coffee Roaster (Klasik Beans)		
		Production Manager (SUJI)		
ITB (Online)	6 people	Animator (The Fox The Folks)		
		Biotechnologist (Mycotech)		
		Production Administrator (Mycotech)		

lyze the different education and career landscapes between their and the children's reality. They were also exposed to an existing video showing such areas' reality. In both workshops, Role Models were not involved directly in the process. Instead, participants were free to connect with Role Models they knew. Since the interview and field production was unsupervised, the participants first simulated the technique during the workshop (Figure 3.16) before applying the skills in actual production on their own.

A survey was distributed to evaluate the workshop design toward participants' content creation competence and motivation, and the video outputs were analyzed. Five videos about the profession of video designer, game illustrator, professor, restaurant owner, and venture company owner were produced from these two workshops.



Figure 3.16 Co-creators were practicing interview skills.

Iteration 1 - Result and feedback The survey suggested that the participants join the workshop to try something new and contribute to society. The Co-creators increased their competencies in job storytelling and 360° video production. They also realized how they could use the medium to contribute to society and were encouraged to spread the message. However, since the Role Model was not included in the workshop, their involvement could not be observed.

Some of the video results showed good use of 360° environment. For example, in the video about a video designer, the Role Model played around with soap bubbles as a gimmick to direct the viewer's attention in multiple directions. However, the utilization of the 360° environment was not evenly distributed in other videos. The game illustrator video, for example, only utilized one-half of the environment most of the time. And in many of the videos, awkward placements of the camera were seen (e.g., on top of the table, on someone's lap, etc.). From the storyline, not all videos contained clear messages. A detailed guideline could help the Co-creator create the same storyline and interaction level in the video.

**Iteration 1 - Improvement** From the result of this iteration, some improvements were:

- Design some worksheets to help participants produce video content within the expected standard
- Collaboration with the host company for more intimate video production with the Role Models

## Iteration 2 - VJIT (2019)

Nineteen students from VJIT joined the second iteration. All participants did not have experience in video making beforehand. Due to the limited number of equipment and high interest from the students, each group consists of 6-7 people. This workshop produced three videos related to the quality controller, system integrator, and production manager profession. The workshop was conducted between March 11th - 15th, 2019, for 14 hours, with the addition of 3 hours of field production. This time, several worksheets related to empathy, story building, and storyboarding were designed to help participants in their video-making process (Figure 3.17). The Role Models were part of the workshop, and workshop facilitators supervised the production process. Due to the adjustment in schedule, the interview and field production with the Role Model was conducted simultaneously (Figure 3.15).

The use of the worksheets and the impact of direct collaboration with the company and role models on the stakeholders' content creation and community building were evaluated through surveys and interviews.

Iteration 2 - Result and feedback The content creation workshop encouraged university students to contribute to children's education and, at the same time, made them think about their careers. After the workshop, 3 Co-creators were considering doing an internship or applying for a job at the company where they shot videos. One of the Role Models was proud of the video result; she showed it to her children. Many Role Models could relate to the significance of the project. The partner company was pleased with the outcome of the activity and wished to continue the project.

Unfortunately, many things were left to be improved regarding video quality. Because of the tight and sudden change in the production schedule, the participants could not plan the video production. Even though they went through the

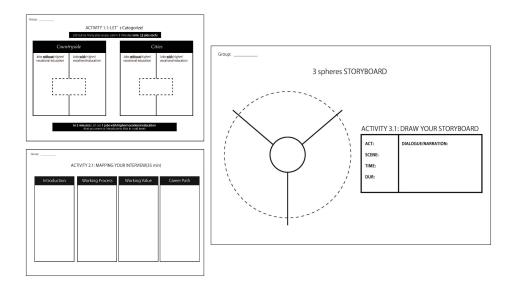


Figure 3.17 Worksheets for the second iteration.

worksheets in the workshop, they could not be implemented in actual production. As a result, the video's storyline and quality were unsatisfactory (i.e., shaky camera and complex vocabulary).

**Iteration 2 - Improvement** From the result of this iteration, some improvements were:

- Separate the time for interview and field production and provide time to plan the production
- Improve the worksheets to guide the production better

## Iteration 3 - ITB (2019)

The Content Creation Workshop was done in two methods for the third iteration. The first method was a face-to-face workshop attended by four undergraduate students from ITB. These participants had no previous experience in 360° video production but had knowledge of video production in general. And the second method was a distance workshop, with six undergraduate students from the same school who had prior experience in 360° video production. Both workshops were



Figure 3.18 Co-creators and a Role Model in his workplace.

conducted with prior coordination with the Role Model and their working place, and each Role Model was assigned to each group to work together with (Figure 3.18). For this workshop iteration, a content creation guideline based on previous workshops' results and children's feedback was compiled and summarized by Gunawan in Appendix B.3. The worksheets were improved with some additional worksheets for empathy and interview mapping sessions. The complete worksheets are in Appendix B.4.

The first workshop was conducted on a fixed schedule, in collaboration with ITB Summer School 2019, from August 1st to August 6th (Tab.3.3). Every day, 2-4 hours of the summer school activity was dedicated to the workshop. Since the summer school activity also included other participants, some part of the workshop was conducted conjointly, for example, the session introducing technology 360° Video(Production Planning) and the general video production skills (Post Production). The rest of the sessions were conducted separately from the other summer school participants.

The second workshop had a relatively flexible schedule. The participants were given all the materials (session guidance, worksheet, equipment, Role Model contact, etc.) in several batches. The participants arranged their schedules for six

Table 3.3 Workshop schedule.

Date	Dur.	Session
Aug 1	2.5h	Empathize
		Research and Interview
Aug 2	3h	Story Building
		Production Planning
Aug 3	4h	Field Production
Aug 5	4h	Post Production
Aug 6	2h	Presentation

weeks and did the production independently. They presented their final products at the end of the process.

Iteration 3 - Result and feedback The sequence of the activities, the video guide, and the worksheets were proven to help the participants understand the purpose of the video they created. In the face-to-face workshop, it was observed that the participants made a lot of consideration in creating the story by avoiding using complex words and providing a script with easy-to-understand terms to match children's language. Even the participants from the distance workshop were able to include a lot of interaction between the Role Models and children and direct their attention to their videos.

Unfortunately, the group who created the video for the Biotechnologist had difficulty adjusting the language due to the abundant amount of technical terms in the working process. This could be solved by finding a different way to explain those technical terms and make them into a script. An exercise to accustom the Co-creators to children's language can be added to the workshop. Another technique that can be used is to focus on showing the working process in the video production and adding narration afterward to avoid using complicated words that Role Models are using habitually on a daily basis.

Additionally, the face-to-face workshop was deemed suitable for participants without experience in 360° video making as they required hands-on guidance throughout the process. On the other hand, those with experiences in 360° video production might carry the process through distance workshops. The distance

workshop was more flexible, allowing participants to adjust their schedules during the school semester. However, a deadline was important to determine the end of the project.

**Iteration 3 - Improvement** From the result of this iteration, some improvements were:

- Design an activity that could help participants get used to using easy and natural vocabulary
- While the program was enabling the stakeholders to create the video content, further research on how it affects their Sense of Community needs to be done

## Final Workshop Program

Based on the result of the iterations, below is the final design of the Content Creation Workshop. The workshop consists of 7 sessions, with three sessions where Co-creators interact with Role Models: Research & Interview, Field Production, and Presentation (Figure 3.19). The schedule is quite flexible depending on the workshop format, as long as they were done in relative order and Co-creator were given enough time to plan the shooting after they collected data from research and interview. Below is a detailed explanation of each session.

- 1) Empathy. The empathy session is designed for Co-creators to prepare them with the mindset they need throughout the video production process. An ice-breaking activity to help Co-creators become familiar with using vivid vocabulary is designed. Next, using the "Jobs Around Us," "Jobs in Rural Areas," and "Ca-reer Paths" worksheets, they do a brainstorming activity to discuss and analyze the different exposure and career paths available in rural areas. They are also exposed to an existing documentary or video that shows the reality of such regions.
- 2) Research and Interview. To create a story about the Role Model, research on the job and in-depth interview with the Role Models themselves is very important. Every group is assigned one Role Model with whom they are collaborating. They are equipped with interview skills and provided access to the Role Model

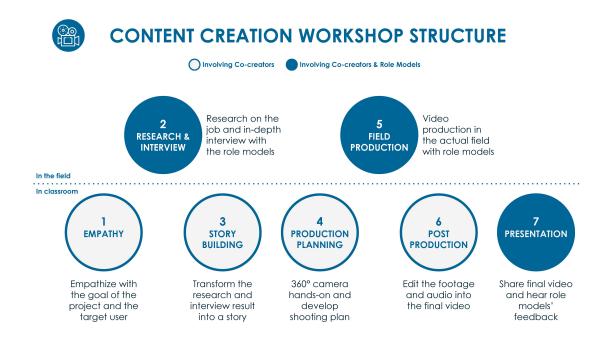


Figure 3.19 The structure of Content Creation Workshop

and their workplace. At the same time, they can do a workplace tour with the Role Model to prepare for the production in the later session.

- 3) Story Building. In this session, the participants learn how to transform their research and interview results into a story. Using the "Interview Mapping" and "Storyline" worksheets tailored for this project, they go through the story-building process. They are also introduced to the standard video duration, substance, and structure expected for this project.
- 4) Production Planning. Once the storyline is ready, the participant may move to the more technical part of the production. As a start, they learn about and experience a 360° video, so they understand the different experiences it provides compared to the conventional 2D video. They learn to use audio and visual elements to create an engaging video experience. Hands-on practice with the camera and other equipment is also implemented. Simultaneously, a "Storyboard" template designed for 360° video production is delivered for them to prepare for the field production.

- 5) Field Production. With the help of the Role Model, each group does the video production in the actual field according to their plan. Since video shooting requires cooperation from other people in the working place, permission should be issued beforehand.
- 6) Post Production The last part of the workshop is to edit the result of the shooting into the final video. They can add music, text, and other supporting elements to the video. Additional audio recordings for narration or voice-over may be conducted based on each group's production plan. This session also includes a tutorial on converting the footage and the final videos, so it is playable in 360° format.
- 7) Presentation A final presentation session is conducted to mark the workshop's completion. Role Models are invited to see the final videos.

## 3.5.5 Local Participation Workshop

## Workshop Participants

The participants of the workshop were parents and teachers in rural areas. The parents whose children were the main target of IN360° Career Exploration were prioritized. Despite their educational background, all parents were welcome to join the workshop to contribute to their children's career exploration. However, it was expected for them to be able to read and write to be able to follow the activity. It was also required for them to be open-minded throughout the activity.

## Workshop Design

The Local Participation Workshop was an activity to facilitate parents' and teachers' participation in children's career exploration. Through this workshop, I aim for parents and teachers to understand the purpose of IN360°'s activities and be willing to accompany their children in their career exploration process afterward.

The first workshop was designed as an ideation activity on how 360° video technology can be used for learning in the local area. Unlike the Content Creation Workshop, the workshop started with a Project Introduction. In the introduction,

participants learned the project's goal and experienced one of the video content using Cardboard viewers. The project introduction took a different stance than the Content Creation Workshop, which focused more on the benefit instead of the existing limitation in the rural areas to avoid offending the local community.



Figure 3.20 Participants were performing their skit.

The Project Introduction was followed by Ideation and Presentation sessions. The Ideation process was done multiple times to break the rigid mindset and explore as many possibilities as possible. Once the team came up with an idea, they presented it in a skit method. The first iteration of the workshop was conducted with parents and teachers from Pramuka Island. 5 parents and five teachers joined the workshop and were paired in each group.

Result and Feedback The workshop helped the participants understand the goal and imagine the actual implementation of the project. The participants showed enthusiasm in the activities, mainly when they performed their skit (Figure 3.20). 80% of them felt involved in the project, and the school where the teacher worked asked for one of the Cardboard for them to replicate in one of the school festivals. However, since the activity was only an ideation activity, no meaningful follow-up connected this activity to the children's career exploration process.

# PROJECT INTRODUCTION PRESENTATION Adding purposeful making element PROJECT INTRODUCTION PROJECT INTRODUCTION PROTOTYPE ITERATION PRESENTATION

PROTOTYPE: PRAMUKA ISLAND (2017) 5 Parents, 5 Teachers

## Figure 3.21 Local Participation Workshop design process.

Improvement To make this connection between the Local Participation workshop and Career Exploration, I embed a purposeful making activity in the workshop. Instead of just imagining the implementation of the project, creating one of the learning materials, the Mission Card, became the workshop's goal. This workshop was improved by following the design thinking process to make the Mission Card. Prototype and Iteration sessions were added to the previous structure (Figure 3.21). Similar to the Content Creation Workshop, further research on how it affects their Sense of Community and how it can be replicated also needs to be done.

#### Final Workshop Program

Based on the prototype evaluation suggestion, the final design of the Local Participation Workshop is below. The workshop comprises five sessions (Figure 3.22).

1) Project Introduction. The project introduction session is designed for parents to prepare them to work as a team and build the mindset they must keep throughout the Mission Card designing process. And then, participants learn about the project's vision, which is explained from the point of benefit instead of

the limitation in rural areas. An ice-breaking activity to help relieve their tension is conducted at the beginning of the workshop.

- 2) Ideation. The goal of this session is to help parents understand the message from the video assigned to them to be made into a Mission Card and enable them to come up with several ideas as a group. Using the ideation method, they generate as many ideas as possible, build more from those ideas, and then select some potential ideas to be made into prototypes in the next session.
- 3) **Prototype.** Parents create several prototypes using the Mission Card worksheet based on their chosen ideas.
- 4) Iteration. In the iteration session, each group receives feedback from their peers. From the feedback, they make decisions and come up with the final design of their Mission Card.
- 5) Presentation. Lastly, all groups share their final design with the class and submit their final designs to be made into actual products after the workshop.



Figure 3.22 The structure of Local Participation Workshop

## 3.5.6 Workshop Facilitation

#### Role of Facilitators

To facilitate both workshops, facilitators must have an understanding in design thinking and video production. The role of the facilitators was to help participants to create the learning materials based on the standard that had been set.

Different from the Corner Facilitators, the facilitators of the workshops might do more intervention in the workshop process. Their role was to enable the workshop participants to follow the workshop steps and develop the learning materials assigned in each workshop. The facilitators helped them with the technical part and encouraged them to express their thoughts and have an open mind. The facilitators were allowed to work with the group and helped them develop creative ideas to produce the learning materials.

## **Supporting Materials**

The facilitators were given the program guideline and supporting materials for each workshop. See Appendix B for Content Creation Workshop guidelines and Appendix C for Local Participation Workshop guidelines. The supporting materials for both workshops included slides and worksheets that would help the facilitators operate each step of the workshop. For the Content Creation workshop, previous IN360° video contents were used to inspire the new ones. Meanwhile, in the Local Participation workshop, the video contents were used as a base to create the challenges in the Mission Cards.

## Equipment

An essential requirement to run both workshops was 360° Video Viewing Set and stationery. A classroom equipped with a computer and projector was also required for the workshops. For the Content Creation workshop, additional equipment for video production was the most important. The kit included a 360° camera, audio recorder, and a camera stand for each group. It was also a good idea to prepare extra memory and battery for smooth production (Figure 3.23). A computer for editing was also necessary. A lot of software can be used to edit a 360° Video; for this workshop, Adobe Premiere Pro CC was used in the workshop.



Figure 3.23  $\,\,360^{\circ}$  video production set.

# Chapter 4

# Validation

IN360° promotes career aspiration in children who live in areas with less access to Role Models through various interventions. First, it allows children to discover the value of a job from workpeople through 360° video technology and its connection to their own life by completing the mission card. Second, every stakeholder can contribute and have meaningful interaction with children by supporting their exploration journey. Third, IN360° provides an online-physical platform to support learning and encourage linkage between children and their learning community.

To examine the effectiveness of the community-based career exploration service for children in disadvantaged areas, the validation will look at the following:

- 1. The impact of the exploration components in promoting aspiration in children who live in disadvantaged areas
- 2. The effectiveness of each workshop in enabling each stakeholder to understand their roles and contribution to the sustainability of the community
- 3. The efficiency of the Exploration Corner to support learning and community interaction
- 4. The replicability of the program for sustainable career exploration for children

# 4.1. Community Profiles

The validation was conducted with communities in Panglungan Village, Bandung Institute of Technology, and working people based in the Bandung Greater Area.

#### Community in Panglungan Village

Panglungan is a village located on the slope of Anjasmara Mountain in East Java, Indonesia. The village is surrounded by forest on three sides, and the only access to a nearby village is through the north area of the village (Figure 4.1). With the primary economic sector in agriculture, most people here work as farmers or stay-at-home moms. While 100% of the children in this village are registered in Elementary School or equivalent, the number of school enrollment continues to decrease even though this area has school facilities with free tuition up to High School. And only 10% of the students in this area continue their study to higher education after high school. Most of them work as farmers or factory workers in neighboring cities after discontinuing their studies.



(Source: Google Maps (Maps 2023, Maps 2015))

Figure 4.1 Location of Panglungan Village

The Career Exploration and Local Participation part of the validation was conducted in this village; the children and parents to join the validation were those affiliated with Faser Madrasah Ibtidaiyah (MI Faser) located in this village. Madrasah Ibtidaiyah, or MI, is a formal education equivalent to Elementary School, which include Islamic value in the curriculum. The school has classes from grades one to six. For the Career Exploration, I worked with children aged 10 to 12, or those in the 5th or 6th grade, at the time of the implementation.

#### Community in Bandung Institute of Technology

The Content Creation part of the validation was conducted in DKV ITB. ITB is one of Indonesia's most prestigious higher education institutions, located in Bandung, West Java. More specifically, the students who joined as Co-creators were the 1st year undergraduate students of the Digital Visual Narration (NVD) program. For facilitation, I collaborated with the 1st year master's students from the Graduate School of Design, Faculty of Art and Design (FSRD), ITB.

#### The Role Models

For the Role Models, I collaborated with working people in the Bandung Greater Area with a minimum of 2 years of experience. All of them work in the field of Art and Design, similar to the field of Co-creators who were joining the workshops.

# 4.2. Implementation

A total of 3 activities were implemented between June to July of 2022 with the community from Panglungan Village, ITB, and workplaces located in the Greater Bandung area: (1) Career Exploration in Panglungan Village, (2) Content Creation Workshop at ITB, and (3) Local Participation Workshop in Panglungan Village.

# 4.2.1 Career Exploration in Panglungan Village

The Career Exploration was conducted in 2 cycles during July 2022. A total of 43 children aged between 10 to 12 joined the activity. Their participation in the exploration was voluntary by registering themselves with their homeroom teachers.

In each cycle, the refined version of the exploration components was implemented. The (1) Experience, (2) Reflect, and (3) Interact components that were done at the Corner, from here on, will be called Corner Exploration. Meanwhile, the last component, (4) Practice, was done as a Home Exploration (Table 4.1). Participants were free to return to the second cycle as they liked within the given schedule.

Table 4.1	Career	Exploration:	Timeline
omponent		Data	Tin

Cycle	Component	Date	Time	Location
1	Experience, Reflect, Interact	July 5-8, 2022	13:00 - 15:00	Corner
1 -	Practice	Before cycle 2	Not Specified	Home
2 -	Experience, Reflect, Interact	July 11-14, 2022	13:00 - 15:00	Corner
	Practice	Not Specified	Not Specified	Home

#### Corner Exploration

The Exploration Corner was installed on the front porch of the house of one of the most prominent families in the village (Figure 4.2). The home was also located near a Musholla (prayer hall), where some children usually spend their afternoon for religious education. In the Corner, two children at a time spent about 20 minutes going through exploration components.



Figure 4.2 Career Exploration Corner at Panglungan Village

- Component 1: Experience Video viewing (choose one from 13 video options (Figure 4.3))
- Component 2: Reflect (1) "If I were a ..." drawing (2) "I should learn or do" reflection

4. Validation 4.2. Implementation

### • Component 3: Interact (1) Comments writing (2) Story re-telling

Figure 4.3 Content options for Experience activity

The exploration at the Corner was facilitated by a volunteer, Mr. A, who is also the owner of the house where the Corner was installed. The facilitator was given a guideline containing the goal of the activity, the step-by-step of the activity, the materials, and the logistics required.

#### **Home Exploration**

After going through the exploration in the Corner, each participant was given a Mission Card related to the video they watched in the Experience part. For this validation, one Mission Card option was provided for each video.

#### • Component 4: Practice Mission Card execution

Also, as a part of community building, the mission was done at home with the supervision of each parent. The parents were requested for their cooperation beforehand through the research manual sent together with the consent form. Once the mission was done, the participants could receive one sticker reward each at the Corner.

# 4.2.2 Content Creation Workshop at ITB

The Content Creation Workshop was conducted in the Ganesha Campus of DKV ITB between June 20 to 25, 2022 (Table 4.2). Three graduate student volunteers from FSRD ITB facilitated the workshop. They were given a guideline containing the workshop objectives, the detailed program schedule, the workshop slides and worksheets, the logistics required, and the information related to the Role Models.



Figure 4.4 Contet Creation Workshop at ITB

Table 4.2 Content Creation Workshop: Timeline

Date	Time	Session	Location	
June 20, 2022	09:00 - 11:00	Empathize & Research	ITB	
	13:00 - 14:00	Interview*	Workplaces	
June 21, 2022	09:00 - 12:00	Story building	- ITB	
		Production planning		
June 22, 2022	All day	Field production*	Workplaces	
June 23, 2022	09:00 - 12:00	Post production		
June 24, 2022	09:00 - 12:00	Feedback	ITB	
June 25, 2022	10:00 - 12:00	Final presentation*		

#### The Co-creators

A call for Co-creators was announced to the 1st year students of the NVD program, and 10 of them participated. They were asked about their 360° video production skills before the workshop and arranged into groups of 3 to 4 people so that each team has relatively equal starting experience and ability. Throughout the workshop, each group collaborated with a working person as the Role Model in the video.

After the videos created from the workshop were shared with the children in Panglungan Village, each Co-creator received an IN360° activity report. This activity report included the summary of the Content Creation Workshop, the Career Exploration Corner, and comments from the children on each of their videos (Figure 4.5).

#### The Role Models

A call for Role Models was announced to some of the alums from FSRD ITB whose working bases were in the Greater Bandung area. Each Role Model was introduced to the project and the commitment expected from them in the workshop. The Role Models were involved in the workshop in the Interview, Field Production, and Final Presentation sessions (Table 4.2). Three Role Models joined the workshop, but one had a sudden conflicted schedule, so he was replaced by someone from the same company (Table 4.3).

Table 4.3 List of Role Model		
Role Model	Job Title	
Role Model A	Fashion Designer	
Role Model B	Creative Director	
Role Model C(Replaced)	CEO	
Role Model C2	Creative Manager	

After the videos created from the workshop were shared with the children in Panglungan Village, each Role Model also received an IN360° activity report. The content of the activity report was quite similar to the one given to the Co-creators.



Figure 4.5  $\,$  IN360° Activity Report

4. Validation 4.3. Evaluation Method

The only difference was on the comment page, where they were given space to reply to each comment from the kids (Figure 4.6).



Figure 4.6 Rolemodel's reply to children's comments

## 4.2.3 Local Participation Workshop in Panglungan Village

The Local Participation Workshop was held in MI Faser on July 5th, 2022, from 9 am to 12 noon (Figure 4.7). 9 parents participated in the workshop; all of them were mothers, 6 were mothers of those who also joined the career exploration activities, and the rest were teachers and mothers of other children. They were divided into four groups and assigned one reference video each. Using the design thinking process, the parents transformed the information they got into a Mission Card with the help of the worksheet provided.

The workshop was facilitated by the same three student volunteers from the Graduate School of Design, FSRD ITB. They were given a guideline containing the workshop objectives, the detailed program schedule, the workshop slides, and worksheets, as well as the logistics required.

# 4.3. Evaluation Method

A combination of the quantitative and qualitative evaluation was used to evaluate the community-based career exploration service design for children in areas with less access to Role Models.

Through the Career Exploration implementation, the impact of the activity on children's aspirations and sense of community was evaluated using observation, survey, and output analysis methods. Combined with real-time observation, 4. Validation 4.3. Evaluation Method



Figure 4.7 Local Participation Workshop at Panglungan Village

a video camera was set up to observe the participants during the activities. A deeper analysis of communication and interactions between participants was conducted using video recording. After each activity, a post-activity survey related to exploration and the sense of community was given out to participants. Additionally, the efficiency of the corner and its replicability were looked upon through observation during and after the installation of the corner, along with interviews with the Corner Facilitators.

Meanwhile, to evaluate the stakeholders' sense of community, real-time observations, video observations, and post-activity surveys after the Content Creation and Local Participation workshops were conducted to assess the stakeholders' sense of community. In addition, interviews with the Workshop Facilitators were conducted to measure the replicability of the community-building method through the guideline design.

#### 4.4. Result

### 4.4.1 Promoting Aspiration in Children

#### **Evaluation Points**

The evaluation point for promoting aspiration in children are listed below:

- 1. Children discover lifelong learning and its contribution to life and work
- 2. Children discover how work contributes to individuals' lives
- 3. Children re-engage with exploration at the corner

The data from the observation, learning output, and the post-activity survey were analyzed to evaluate the points above. A total of 43 children joined the Career Exploration activity. After excluding some data for consent and validity reasons, 69 data from the Corner Exploration and 40 from the Home Exploration were used for evaluation.

#### **Evaluation Result**

#### Children identify the relationship between learning, life, and work

In the exploration, children internalized the experience from the video through the visual journal with the topic "If I were a ..." and reflection with the prompt "To be a ..., I should learn or do ...".

They internalized the learning in many different ways. Some drew on the working processes, while others focused on identifying the equipment used by the Role Models, including the working environment. Furthermore, some children interpreted what was being said in the video and created their interpretation of how they would look doing that job (Figure 4.8).

Additionally, they reflected on what they should do or learn to become like the person in the video. The answers include general answers like "I should study hard" and "I have to study in college"; more specific knowledge or skills to the job like "I should draw better (to be a Game Illustrator)," "I should learn how to edit video (to be a Video Designer)," "I have to learn how to plant coffee seeds (to be a Coffee Quality Controller)"; and attitudes or soft skills like "leadership (to

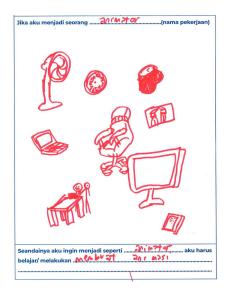




Figure 4.8 Children's learning internalization

be a Creative Manager)," "discussion skill (to be a Professor)," "experimenting (to be a Biotechnologist)," "discipline (to be an Animator)," and "helping mom in the kitchen to be able to cook (to be a Restaurant Owner)."

#### Children experience how skills can be transferable

The Practice component of the exploration was designed to create an opportunity for children to apply the skills introduced by Role Models in another aspect of life (learning, daily life, etc.). It was also designed to encourage involvement from parents in the exploration process. Compared to the previous experiment on mission completion, parents' involvement has increased the Mission Card completion rates, with 40 out of 69 data collected. The level of completion of each Mission Card was also entirely satisfactory, as most of the children could follow the instructions and fill in the reflection form well (Figure 4.9).

While working on the mission, children experience how the skills can be transferable. For example, one of the missions related to a professor's job was gathering data and retelling the information. The topic given was "my village". Through this activity, the children commented that they learned about research skills.

"Saya dapat menggali informasi tentang desa saya."

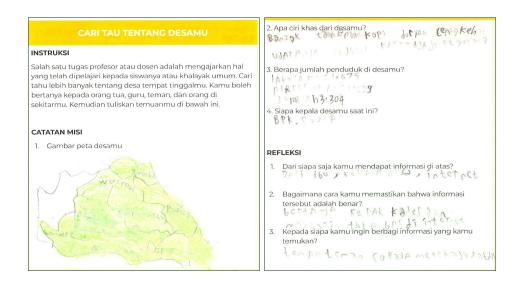


Figure 4.9 Children's finished Mission Cards

(I could gather up information about my village.)

"(Saya belajar) mencari informasi dari internet dan mewawancarai Pak Kades."

((I learned) to look for information from the internet and interviewed the village head)

The children also thought that the activity helped them understand the important attitude introduced by the Role Model. One of them commented:

"Saya (jadi paham bahwa) harus berani bertanya dan bisa mengumpulkan data dengan benar."

((I understood that) I have to be brave to ask questions and know how to collect data properly.)

." One of the parents' feedback also stated the activity's benefit to children's daily life.

"Saya senang dengan adanya kegiatan ini anak saya mempunyai pengalaman baru dan wawasan lebih luas tentang kehidupan sehari-hari."

(I am happy with this activity, my child has new experiences and broader insights about everyday life.)

#### Positive attitude towards their future

After going through the activity, the children expressed their initial interest in the jobs. In the sharing component, some of the children wrote comments directed at the Role Model saying "I want to be a professor". The positive attitude was also reflected in the survey result, where the children were asked if they think that they can be like the Role Model, and the majority of them answered "Yes" (Figure 4.10). The reasons mentioned by the children were "Because it is fun", "I want to be a Production Manager," "I will try my best," etc. Those who said "No" mentioned that the reasons were due to another interest. Less confidence was shown in the children who answered "Maybe," stated "it is very difficult," or "I am not sure."

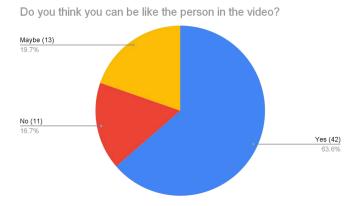


Figure 4.10 'Do you think you can be like the person in the video?' (n=66)

When asked about their thought on aspiration and career, the children said

"Kita yang memiliki tujuan karir biasanya berusaha lebih keras untuk mengembangkan potensi diri sehingga dapat mencapai cita-cita."

(Those of us who have career goals usually try harder to develop our potential so that we can achieve our goals.)

"Karir adalah tahapan untuk mencapai keinginan, cita-cita adalah keinginan yang mau dicapai."

(Career is the process to achieve the goal, and aspiration is the goal to be achieved.)

Moreover, they commented that through the activity they:

"Menambah pengalaman dan semangat mengejar cita-cita." ((I) gain experience and enthusiasm to pursue my aspiration.)

"Mendapatkan pengalaman dan lebih semangat untuk bersekolah."
(Gaining experience and becoming more enthusiastic about going to school.)

#### High interest to explore more

According to the comments the children wrote for Role Models, they showed curiosity toward the job. They asked some questions like "What do you usually do in the office?", "How to make it (video mapping?)", "How to pick and process the coffee, so it tastes sweet?", etc. The parents also commented on the survey that they faced some challenges in answering the questions from students related to the activity.

"Karena banyak pertanyaan yang disampaikan anak, memaksa kami berpikir memberikan jawaban yang logis dan masuk akal" (Because many questions are asked by children, it forces us to think about giving logical and reasonable answers.)

From 39 children who joined the first time, 28 children came on the second cycle. Two joined for the third time when the second cycle was running. Similar to this observation, children's answers to whether they want to watch another video also show positive feedback, where the percentage increased over time. The survey result shows 84.6% of those who joined one time answering yes and 89.3% of those who joined for the second time answering the same (Figure 4.11). Most of them found the activity fun and would like to know more about other professions.

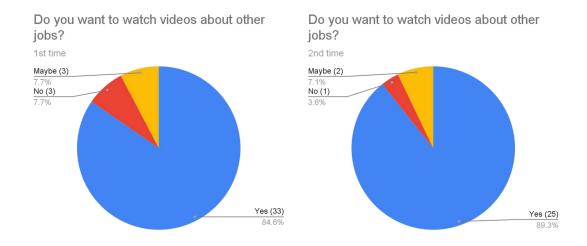


Figure 4.11 "Do you want to watch videos about other jobs?"

When asked about the most interesting thing they experienced from the Exploration Corner, many children mentioned a lot of answers related to the Experience step. The responses were linked to both the novelty of the IN360° technology and the content inside the videos, especially the working process and the value of the job. However, as the children joined for the second time, more answers related to the Reflect and Interact steps came out as they were already familiar with the process. Interest in the Practice step was also observed from the verbal conversation with parents who mentioned that their child could not wait to come to the corner again because they want to get another mission to do at home.

# 4.4.2 Building the Sense of Community

#### **Evaluation Points**

The evaluation point for building a sense of community in every stakeholder are summarized below:

Table 4.4 Sense of Community Evaluation Points		
Children	1) Children feel welcomed by the community	
	2) Children form mutual relationships with other members	
	3) Children recognize the benefit of the project	
	4) Children shared quality interaction with other members	
Parents	1) Parents understand their role in the community	
	2) Parents aware of their influence on children's careers	
	3) Parents recognize the benefit of the project	
	4) Parents shared quality interaction with other members	
Co-creators	1) Co-creators understand their role in the community	
	2) Co-creators aware of their influence on children's careers	
	3) Co-creators recognize the benefit of the project	
	4) Co-creators shared quality interaction with other members	
Role Models	1) Role Models understand their role in the community	
	2) Role Models aware of their influence on children's careers	
	3) Role Models recognize the benefit of the project	
	4) Role Models shared quality interaction with other members	

#### **Evaluation Results**

#### 1) Children's sense of community

#### Providing safe space for children

The survey shows that most children feel safe expressing their opinions during the Corner and Home Exploration (Figure 4.12). The observation indicated that positive remarks from the facilitator helped struggling students feel more confident. On the first participation, some children were hesitant to express their opinion. Most of them needed more time to process their thoughts, while a few others seemed to think there was only one correct answer. It could be seen from their behavior of copying their friend's drawing or answer. To help them express their idea, the facilitator had to proactively give prompt questions and respond to their response with positive remarks. He also reminded the children that there is no one correct answer to this activity and that expressing what they think and how they feel is more important. In the end, the students could tell some of their idea,

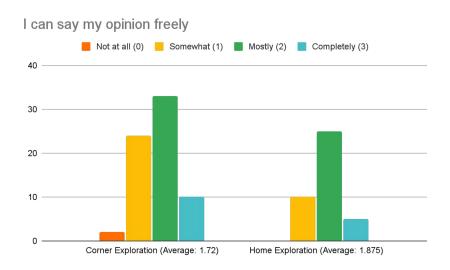


Figure 4.12 "I can say my opinion freely" (children's answer)

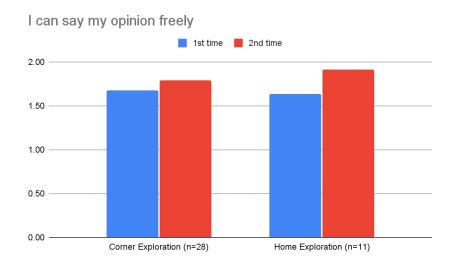


Figure 4.13 Comparison between 1st participation and 2nd participation

and even more on the second participation.

Moreover, from the average data of children who visited the Exploration Corner twice (n=28) and those who collected their Mission Cards two times (n=11), an increase in their ability to express their opinion can be seen (Figure 4.13). This means that the more they explore, the more they feel comfortable expressing their thoughts.

#### Peer influence in learning decision

The observation also shows how much influence peers have on children learning decisions, from choosing the video to watch to return to the corner for another cycle.



Figure 4.14 Children watch the same video together

Often, the children choose the video based on what their other friends watched in the round before or choose the same video with their friend on the same round so they can watch the video together (Figure 4.14). Some children could be seen choosing a video that their friends had explained to them the week before.

Another observation shows that there was one child whose Mission Card execution was not supervised by the parents. Nevertheless, this kid visited the corner up to three times even though the expected participation during the timeline of this

validation was only two times. It was observed that his close friends always came together with him to the corner. They even chose the same video for the second exploration and did the home exploration together. This shows that peers can also encourage motivation in children, especially for those who could not receive them from somewhere else.

#### Children recognize the merit of the project

Aside from the number of children who returned to the second cycle, children's recognition of the merit of this project can be seen from the comments for Role Models. Many of them give comments along the line of "Thank you for sharing your useful knowledge or experiences".

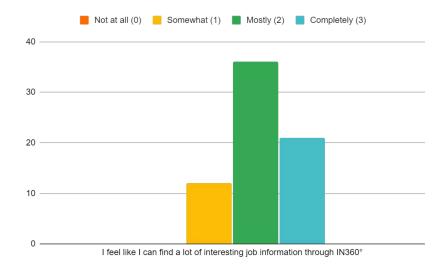


Figure 4.15 "I feel like I can find a lot of interesting job information through IN360" (n=69)

The survey also shows that the children can find interesting job information through this project, with an average score of 2.12 out of 3.00 (Figure 4.15). Almost all children also said that the home exploration activity helped them better understand the skill necessary for the job they watched.

#### Children's interaction with the community

In the Sharing step, children could interact indirectly with the Role Model by writing comments or responses to the video. They were delivering gratitude messages to the Role Model through the comments. Some also asked questions about the working process or the job. The survey result shows that most of them enjoy interacting with Role Models. Most children also agreed with the statement that they enjoyed communicating with their parents. And they also felt like they could talk about their aspiration or interest with their parents through this activity (Figure 4.16).

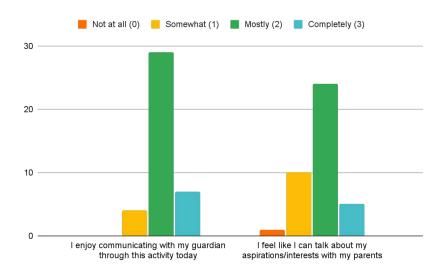


Figure 4.16 Children's interaction with parents (n=40)

Through the Practice step, children expressed their interactions with their parents. Below are some excerpts from their answers to the question of new or interesting things they experienced during the Home Exploration.

"Bisa belajar memasak bersama mama." ((I) Can learn to cook with (my) mom.)

"Menemukan informasi penting. Saya jadi lebih tau tentang mama."

((I) Found important information. I got to know my mom better.)

#### 2) Stakeholder's sense of community

#### Understanding role: parents as the primary guardian of their child

From the observation done with two participants at their own homes, It could be seen that each parent has their style in supervising the children. One guided the process step-by-step, and casual conversations emerged between the parent and child. While the other one gave more freedom to the child to do on their own, and the parent was there just in case the child had any questions. However, both parents gave feedback that they needed more guidance in explaining the activity and connecting it to the activity in the corner. Another interesting finding from the observation was the siblings joining the exploration process. When the parent was supervising the kid, the other kids in the house, usually the younger ones, would join the conversation and look at their older sibling completing the mission (Figure 4.17).



Figure 4.17 Siblings join the home exploration

Many parents were involved in the home exploration from the collected Mission Cards. Their involvement varied from explaining the activity to be easily understood by children, reminding them to do the mission, to teaching children some new skills necessary to finish the Mission Card. Below are some excerpts from the

survey.

"Menyenangkan dan merasa bangga ketika mendampingi anak membuat obor. Mulai dari proses mencari bambu hingga obor bisa dinyalakan."

(It was fun and I feel proud when accompanying children to make torches. Starting from the process of looking for bamboo until lighting the torch.)

"Sangat menyenangkan ketika mendampingi anak menyusun daftar pertanyaan untuk wawancara dan mengejari etika mewawancara seseorang sehingga memperoleh informasi yang diinginkan."

(It's fun to accompany my child to compose a list of questions for an interview and follow the etiquette of interviewing someone so that they get the information they want.)

#### Understanding role: parents as part of the community

Another role given to parents, aside from supervising their child working on the Mission Card, was to design the Mission Cards, organized through a Local Participation Workshop. At the very beginning, it was a bit difficult to gather parents to join the workshop. Some of the parents refused, thinking they did not have the minimum knowledge to join the workshop. They have this preconceived notion that they must be competent to join the workshop. Otherwise, they would embarrass themselves. It took some convincing to gather nine parents, all mothers, finally. The ice-breaking activity conducted at the beginning of the workshop also seemed to help the parents to feel less nervous and more enthusiastic.

The parents were then assigned into four different groups, and each group was given 1 video profession to create a Mission Card. When working on the design of the Mission Card, one of the parents, who was assigned to the video of the Coffee Quality Controller profession, thought that the assignment was easy for her because she is a coffee farmer herself. However, she then realized that even though she is a coffee farmer, she never introduced the profession to her children. She then designed the Mission Card by combining the information she got from the video and her expertise. When each group presented their Mission Card

to the class, they looked confident, and it reflected in the survey where all of them commented that they were mostly satisfied with their Mission Card. They believed the Mission Card they created could bring new experiences and insight to the children.

"(Saya) Puas karena (kartu misi ini) untuk menjadikan anak-anak lebih kreatif."

((I am) Satisfied because this (Mission Card) is going to make children more creative.)

The survey result also stated that all parents mostly or entirely agreed with the statement "I understood my role and how I can influence children's aspirations". And most of them could feel their contribution through this activity.

- "(Saya) Mengetahui bahwa cita-cita anak perlu didukung orang tua sejak dini."
  - ((I) Know (now) that children's dreams need to be supported by parents from an early age.)

#### Understanding role: Role Model and Co-creators

All Role Models joined the workshop to share their expertise with the children. They all give a lot of feedback and support to Co-creators during the planning process and production. One of them had a particular message he wanted to deliver, as shown in the remark below.

"Pada saat pembuatan video saya ingin menunjukan sisi fun dari pekerjaan saya dengan tujuan untuk menginspirasi orang-orang lain yang mungkin suatu saat akan mencoba atau terjun ke bidang yang sama, tanpa perlu menggurui. Hal-hal yang ingin saya sampaikan dan tunjukan dalam video tersebut berhasil diakomodasi dalam video tersebut."

(... I wanted to show the fun side of my work with the aim of inspiring other people who might one day try or dive into the same field, without the need to be patronizing. The things that I wanted to

convey and show in the video were successfully accommodated in the video.)

On the other hand, the Co-creators joined the workshop without understanding their role in the community. Once they understood the value of the project, they tried their best to contribute through the video-making process. It was shown in the survey result that, in the end, they all understood their roles and how their work influences the children. Most of them had minimal knowledge about 360° video production skills, but they followed the steps and improved their skills a lot at the end of the workshop. One of the groups went the extra mile by creating production plan documents to be shared with the Role Model outside of the worksheet provided by the facilitators.

#### Sense of belonging to the project

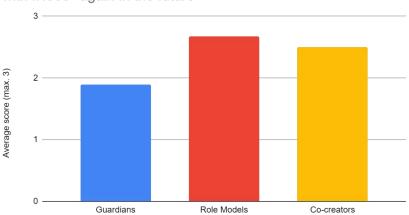
The Co-creators were very serious about the quality of the video that they produced. Even though they feel mostly satisfied with the result, most of them feel that there was something to be improved.

"Saya cukup puas karena beberapa tujuan yang saya harapkan ada di videonya seperti pesan yang dapat tersampaikan dengan jelas serta menyenangkan ada di video yang telah dibuat namun beberapa yang masih kurang adalah saya merasa masih kurang untuk membuat penonton benar" memahami career yang ada di video tersebut."

(I am quite satisfied because some of the goals that I hope for in the video, such as messages that can be conveyed clearly and pleasantly were delivered. But I feel that it is still not enough to make the audience properly understand the career in the video.)

But at the end of the day, they were happy with the workshop, and one of them said "Please make another workshop, I promise I will join". One of the Role Models was also seen posting about the activity on his social media account.

The sense of belonging from the stakeholders has also reflected in the workshop post-survey results, where parents scored an average of 1.89, Co-creators 2.5, and role-model 2.67 (max. 3.00) to the statement "I am willing to put my time and energy into contributing to IN360° again" (Figure 4.18).



I am willing to put my time and effort into making a contribution with IN360° again in the future

Figure 4.18 "I am willing to put my time and energy into contributing to  $IN360^{\circ}$  again"

#### Shared values among members

From the registration form for Content Creation Workshop, it could be seen that all Co-creators were joining the workshop to learn about content creation in 360° video format. Unlike Role Models who joined the workshop to share their experiences and inspire many people.

However, at the end of the workshop, most realized the project's value. Here is one of the responses.

"I want to recommend this activity) Because it is definitely something new worth trying (using a 360° camera), and it also taught me about something that I never thought about before; giving new experiences to kids and giving them a new chance. I'm hoping that this activity can really create an impact for both sides"

The stakeholders changed their perspectives on careers through the Content Creation Workshop and Local Participation Workshop (Figure 4.19). Some of them realized that there were many jobs out there that they did not know about before; they also recognized the significance of every position in society, while

others became more mindful of the gap in information in the cities and rural areas. Even though not everyone changed their mindset, they all agree that aspiration in children is significant for their future.

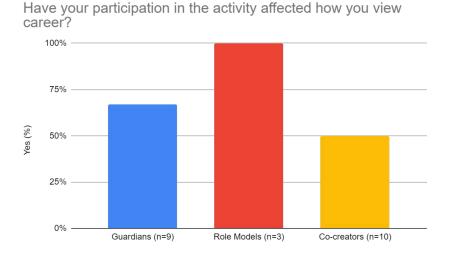


Figure 4.19 "Have your participation in the activity affected how you view career?"

Almost all stakeholders agreed with the value promoted by IN360° and that the program could fill the gap in information about careers that children experience. One of the comments from the Role Model suggested that the project should be deployed to more areas.

"Menurut saya program ini bisa disalurkan ke berbagai sekolah, apalagi di area yang membutuhkan wawasan terbuka seperti ini. Jika akses ke program ini dipermudah apalagi bisa sampai merata di seluruh Indonesia, Insya Allah edukasi seperti ini bisa menjadi hal yang menarik untuk adik-adik kita."

(I think this program can be distributed to various schools, especially in areas that require open insight like this. If access to this program is made easier, let alone spread evenly throughout Indonesia, God willing, education like this can be an interesting thing for our younger generation.)

#### Quality interaction between members

All stakeholders fully participate in the activities by sharing the same goal and spending time working on something that will be used to improve education in their community. One of the Co-creators leaves a comment below.

"IN360° kegiatan yang menyenangkan dan menarik, selain memberikan pengetahuan, saya juga mendapat pengalaman bagaimana bekerja dengan profesional."

(IN360° is a fun and interestina activity, besides providina)

(IN360° is a fun and interesting activity, besides providing knowledge, I also got experience how to work with professionals.)



Figure 4.20 Co-creators and Role Model discuss the shooting plan

Additionally, the survey data shows that all stakeholders enjoy being a part of IN360° in supporting the career development of children in rural areas. The quality time that they spent encouraged them to share this activity with other people. Some of the reasons mentioned are:

"Workshop IN360° memberikan banyak mafaat, banyak yang bisa dipelajari, menarik, dan juga menyenangkan."

(IN360° workshop provides many benefits, a lot to learn, interesting, and also fun.)

"Kegiatan IN360° memberikan kebebasan anak untuk berkarya dan berpikir kreatif dan merubah cara mencari informasi."

(IN360° activities give children the freedom to work and think creatively and change the way they find information.)

"The more the merrier, semakin banyak profesional yang sharing maka akan smakin banyak juga teman-teman yang akan ter inspirasi."

(The more the merrier, the more professionals who share, the more friends who will be inspired.)

## 4.4.3 The Efficiency of Exploration Corner

#### **Evaluation Points**

- 1. The corner is easily accessible by children
- 2. The technology is ready to support the corner

#### **Evaluation Results**

#### Strategic location encourages interaction

Since the Career Exploration Corner location was very close to the Musholla, many interactions were observed during and after the running of the corner. As the corner was located outside and visible from the Musholla, during night prayer time, a group of children who did not join the exploration visited the corner asking "What is this?". Once they saw their friend's name, they called that kid to explain about the corner.

As the facilitator and the house owner where the corner was installed is a relatively well-known figures in the village, some kids would come to him outside the validation period and ask "when can they watch another video again?". After the validation period, two groups of children visited the corner and asked to do the career exploration again (Figure 4.21).



Figure 4.21 Children come to the Corner after the validation period.

#### Improvise with the technology

During the implementation of the Career Exploration Corner, all equipment was available, including the internet connection. However, due to the limited bandwidth and instability of the connection, the video contents were downloaded using a Premium YouTube account so that it could be played in high-quality even without an internet connection.

The children were excited to watch the video and did not face any difficulty in enjoying the video. Many of the children expressed how happy they were to have fun with their friends in the corner.

"Saya sangat senang bertemu teman-teman."
(I so happy to meet friends.)

### 4.4.4 Replicability Feedback from Facilitator

#### **Evaluation Points**

To evaluate the guideline as an approach to replicate the program, I conducted observations and interviews with the facilitators in each activity. From the inter-

views, I would like to receive insight on:

- 1. Understanding from the facilitator
- 2. Challenge and improvement to run the activities

#### **Evaluation Results**

#### Corner facilitators feedback

From the interview with Corner Facilitator, they understood the project's goal and stated that the guideline was sufficient for them to comprehend the whole program. Mr. A, who facilitated the Exploration Corner, said he understood the exploration's goal and agenda. He also took time to understand the learning materials and prepare the logistics required. He had experience in the experiment before, so he could troubleshoot based on the condition. However, he stated that he needs more experience to help children who are shy in nature to be more comfortable going through the exploration. He suggested that further training in dealing with children with various characteristics was necessary to facilitate better facilitation.

#### Workshop facilitators feedback

The workshop facilitators stated that the guideline was very detailed and that they could understand what should be done. They could prepare the program and the logistics for the workshop. Below are some excerpts from the workshop facilitator.

```
"Guidelinenya sangat terperinci." (The guidelines are very detailed.)
```

"Tujuan project dan workshopnya sudah paham."
(I understood the goal of the project and each workshops.)

When asked about the challenges they experienced during the activity, the most common obstacle mentioned was the difficulty communicating with the participants. Especially when the participants were struggling with the instruction or 4. Validation 4.5. Summary

ideation process, this statement was true for those who never had the experience to teach or mentor anyone beforehand, as one of the workshop facilitators, who was also a High School teacher, did not have a problem in this matter. They also mentioned that they need more training on dealing with the unexpected during the workshop and the field production. Facilitator training, in addition to the guideline, can be given to help facilitators in the future.

# 4.5. Summary

The outcomes of this research have provided insight into the impact of IN360° service design on children's aspirations and stakeholders' sense of community, the function of a corner, and the replicability of the program.

The result indicates that the exploration components enabled children to identify the relationship between learning, life, and work, as well as experience how skills can be transferable. The data build on an existing blueprint for career exploration competence: discovering lifelong learning and its contribution to life and work. The observation of the learning outcomes contributes to the use of visual journaling as a reflection method in learning. Children's positive attitude toward their future also indicates promising evidence of their understanding of the value of work and aspiration in life.

The observation data indicates that peer influence is essential in motivating children to make learning decisions. The result gives new insight into the role of peers in increasing students learning engagement. By providing positive remarks, there is an increase in children's confidence to express their opinion. However, there is no direct proof that this condition is the one thing that affects the result. Nevertheless, this approach should be taken into account when considering how to make children feel welcome in the community. The courage to express their opinion also gets better the second time. This shows the probability that repetition could increase children's sense of community.

The workshop and instruction provided helped every stakeholder understand each of their roles and contribute with the knowledge they cultivated. As the guardian of their child, parents use various styles to help children with their exploration process. On the other hand, as a part of the village community, 4. Validation 4.5. Summary

parents initially felt intimidated by the workshop. But, after joining the workshop, they understand how they can contribute to children's career journey. All of the parents who joined the workshop agreed with the value of the project and were willing to make further contributions in the future.

Through the Content Creation Workshop, Co-creators and Role Models could collaborate and deliver the information and messages they wanted to deliver through the videos. Even though the Co-creators did not join the workshop with an understanding of the goal, unlike the Role Models, they recognized the value of the project through the workshop. Everyone understood the project's significance and supported the project's possible future deployment. The result from both workshops supports the idea that adding purpose to a making activity could foster a sense of community in the stakeholders.

The corner should also be accessible in terms of location and technology. The data from observation identify the importance of finding a strategic location to install the corner. Due to the unstable connection in the area, an adjustment in the operation is bound to happen. Additionally, the guidance provided to the facilitator helped aid the corner operation and the workshops. However, the facilitator's feedback mentioned the need for further training on communicating with participants. These results should be considered for deployment.

# Chapter 5

# Conclusion

#### 5.1. Conclusion

This research explores the design of IN360° as a community-based career exploration service that promotes broader aspiration in children with less access to role models. The concept of IN360° entails the balanced use of new media and learning methods to assist children's self and repetitive career exploration, conducted in an Exploration Corner that enabled stakeholders from the local and extra-local communities to support.

The main questions for this research are as follows:

- 1. What are the key components in creating a career exploration program that promotes aspiration in children who live in disadvantaged areas?
- 2. What are the roles and competencies needed from every stakeholder to be actively involved in the community?
- 3. What are the key experiences that need to be provided to support learning and interaction among the community members?

Combining immersive media, visual journaling, peer interaction, and challenging activity, I design Experience-Reflect-Interact-Practice components for Career Exploration with the expectation that children foster aspiration through (1) discovering lifelong learning and its contribution to life and work, (2) discovering how work contributes to individuals' lives, and (3) re-engaging with exploration at the corner. The analysis from observation and survey of the Career Exploration activity indicates that children could identify the relationship between learning, life, and work. They also experience how skills can be transferable from one setting to another. Many children build positive attitudes toward their future after

5. Conclusion 5.2. Social Impact

the activity and are interested in exploring more. The children also develop their sense of community through the facilitation and interaction designed throughout the Career Exploration activity.

To build a sustainable service, multiple stakeholders are identified. For them to develop their sense of community and be able to do their roles, I designed a community scheme and several workshops to facilitate community contribution based on the elements of (1) role assignments, (2) interaction among stakeholders, (3) shared goals, and (4) purposeful-making activities. As a result, all stakeholders understand their roles, develop a sense of belonging to the service, share the same value among members, and have quality interactions with each other both directly and indirectly.

An exploration center in a strategic location in the local area was installed to facilitate children's repeated exploration and interaction among the stakeholders. While the corner should be facilitated with an internet connection, it is also necessary to adjust the use of online and digital media according to the quality of the network at any given time. In addition, the guideline provided to the facilitator is considered enough to aid the operation of the corner. However, from the observation and feedback, further training on interacting with young learners could improve the interaction in the corner.

This research shows that new media could facilitate non-formal learning, like career exploration, in rural areas. It also emphasizes the involvement of local and extra-local stakeholders in supporting learning. The purposeful making activity through the workshop enabled each one of them to perform their roles. Moreover, the result suggests the important role of a learning center and facilitation, but further research on facilitator training needs to be explored before moving forward to the service deployment.

# 5.2. Social Impact

Through the implementation of IN360° since 2016, I have collaborated with 96 children, 55 Co-creators, 17 Role Models, 19 parents, and additional 31 parents who supervised Mission Card implementation at home. These interactions have made social contributions to the following fields.

5. Conclusion 5.2. Social Impact



Figure 5.1 IN360° community in numbers.

#### Community in Panglungan Village

After joining the activity or hearing from their friends about it, children in Panglungan Village show a high interest in the career exploration activity. Two groups of children visited the house where the corner was installed and requested to go through the exploration. Both groups are a mix of validation participants and some friends who have never joined the activity before. Moreover, upon observing the activity, the headmaster of the Madrasah Aliyah (MA, equivalent to high school) expressed her interest in providing similar activities in the school. Responding to this request, I shared with her the channel containing the video content and proposed the possibility of conducting the Content Creation Workshop for the MA students.

#### Help stakeholders think about their own career

Through the Content Creation workshop, the Co-creators gained competencies in storytelling and 360° video production. They were also able to make contributions to society using media creation. But it did not stop there. Through the workshop, one of the Co-creators from Indonesia found the motivation to pursue his study

5. Conclusion 5.2. Social Impact

and career in Japan. Similarly, one of the Co-creators from Vietnam had the opportunity to rethink his career decision after visiting the workplace of the role models. Both of them are now working in Japan following the career decision that they made in the past. On the other hand, through the workshop process, many of the Role Models reflected on their career journey. One of them expressed that he was reminded of the role and significance of his work in society.

## Building trust with the stakeholders

One of the most challenging parts of implementing IN360° service is finding the right people to work with. Dissemination of information in rural areas is usually done by word of mouth, so the opinion of the people respected by the residents is significantly considered. To gain the community's trust in rural areas, coordination with the local educational institution and support from the influential figures from the regions played substantially in the reception of the local people.

Additionally, collaboration with universities or higher education institutions is an appropriate strategy to build partnerships with the Co-creators and other stakeholders. The non-profit image of universities makes it easier to be welcomed by rural communities. Moreover, universities often have existing collaborations with villages, which could help skip the bureaucracy layers. Lastly, the existing relationship between universities with their alums and other business enterprises could accelerate the arrangement of Content Creation Workshops. On the other hand, the workshops can also encourage new relationships among educational institutions and businesses.

## Initiate the deployment of career exploration corner

Witnessing the demand from children in Panglungan Village, the Corner Facilitator, who is also the owner of the house where it was installed, expressed his interest in continuing the activity regularly. The discussion on developing a small library with the Exploration Corner in a plot around his house where children can hang out, read books, and explore careers with IN360° is in progress.

5. Conclusion 5.3. Future Directions

## 5.3. Future Directions

From the validation process, it can be seen that the IN360° service could foster aspiration in children and a sense of community among the community members. Below is the proposition for deployment and further improvement.

## **Deployment Strategy**

The implementation of IN360° in Panglungan village showed promising results for children and the stakeholders. To further deploy the service, improvement in the service is necessary. Based on the insight and feedback from the validation, improvement on the training program for facilitators to provide comprehensive facilitation. Creating more diverse content is also crucial to embrace children's interests. Providing more representation based on gender, disability, and other stereotypes could make the service more inclusive. Additionally, an integrated digital platform to facilitate the exploration and interactions among stakeholders may improve the intensity of the service. The platform can also serve as an exploration journal for children to track their exploration over time.

## Replication in Other Community

The current model of IN360° service is designed for children in rural areas connected to the internet. The design follows the concept of community-based exploration, which includes inclusive physical learning space and strong partnerships among communities in rural and urban areas. To replicate the design of IN360° in other regions, some aspects to be considered are children's context, customs, and infrastructure.

Children grow up in different physical, social, economic, cultural, and religious backgrounds. Based on these differences, content creation and curation can be adjusted but not limited to their existing context. Lesson learned from this research, jobs that are not relatable to children are often not chosen. And video in a language unfamiliar to the children confused them. Exposing children who live in a particular context to successful people with similar situations might inspire them more as they can relate to the story. On the other hand, curating content that might offend a particular culture or children with a specific context is also

5. Conclusion 5.3. Future Directions

a sensible choice. For children who do not live with their parents, the role of a guardian can be done by any adults or volunteers. The exploration and some roles in the community may also be adjusted.

Similar to children, each community also has its customs. This includes language, culture, and even bureaucracy. For example, talking to the parents in their local language helped them start conversations with facilitators. On the other hand, some companies may allow easy access to their premises while others require a specific procedure. Some even have strict privacy measures for video shooting. Adjusting and providing to the different customs would help build trust and partnerships with the stakeholders.

The internet infrastructure is not evenly distributed in rural areas. Unlike Panglungan village, other villages might not have access to the internet yet. To overcome this limitation, a method where the facilitator visits a nearby city to access the internet and download all materials to be played offline could be considered.

## Long-term Impact

Due to the limitation of the study period, the evaluation of the impact of the exploration is mainly done from a qualitative perspective. As building aspiration is a lifelong process, it wasn't easy to see a more significant effect of the program on children's aspirations and learning motivation. In the later stages, after the service is deployed, it could be evaluated whether the activity impacts children's career decisions, like staying in school or continuing to higher education.

## Internet infrastructure in rural areas

While internet infrastructure is expanding to more rural areas worldwide, the speed, stability, and cost of the connection are often limiting for applying ICT and new media in disadvantaged areas. Recognition from network engineering, network service provider, government, and other institutions to accelerate the improvement of such facilities in rural areas would benefit the development of the rural regions.

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## Appendices

## A. Career Exploration Guideline

## A.1 Learning Materials

Video Contents



"Berinovasi Lewat Biologi" https://youtu.be/npg\_IKL4TNY

(Job title: Bio-technologist; Job category: Nature)



"Cinta Kopi Cinta Alam" https://youtu.be/3zStI48hgQg

(Job title: Coffee Quality Controller; Job category: Nature)



"Kopi Juga Bisa Manis" https://youtu.be/dYVd51k5Dfs

(Job title: Coffee Roaster; Job category: Nature)



"Pilih Pekerjaan yang Disukai" https://youtu.be/cj2ETBg1DSw

(Job title: Production Administrator QC; Job category: Business)



"Berani Mencoba Hal Baru" https://youtu.be/w2D1v7a80-E

(Job title: Production Manager; Job category: Business)



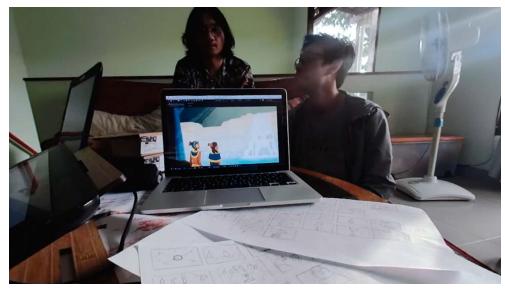
"Berinteraksi Lewat Masakan" https://youtu.be/r00CPcfEL08

(Job title: Restaurant Owner; Job category: Culinary)



"Mengajar Generasi Muda" https://youtu.be/C9gDABrzOr4

 $({\it Job\ title:\ Professor;\ Job\ category:\ Education})$ 



"Jadi Animator Harus Tekun" https://youtu.be/MW2VvyVKo7k

(Job title: Animator; Job category: Art and Design)



"Bermain Tapi Tidak Main-main" https://youtu.be/tBlIq3woSlo

(Job title: Creative Director; Job category: Art and Design)



"Kita Bisa Karena Terbiasa" https://youtu.be/-leKTbSkdak

(Job title: Creative Manager; Job category: Art and Design)



"Kejarlah Keinginanmu Dengan Usaha" https://youtu.be/AWA1a1s-EMA

(Job title: Fashion Designer; Job category: Art and Design)



"Dari Hobi Jadi Pekerjaan" https://youtu.be/XBPKty0obJ4

(Job title: Game Illustrator; Job category: Art and Design)



"Berkolaborasi dan Berkarya" https://youtu.be/ovGB9juqICk

(Job title: Video Designer; Job category: Art and Design)

## Visual Journal Template

NAMA:	UMUR:	NO:
Jika aku menjadi seorang	(nam	a pekerjaan)
Seandainya aku ingin menjadi seper	ti	aku harus
belajar/ melakukan		
	•••••••	••••••

## **Mission Cards**



## O KARTU MISI IN360°

## "Cinta Kopi Cinta Alam"

PENGENDALI MUTU (QC) KOPI

## MARI MENANAM KACANG HIJAU!

## INSTRUKSI

Tanaman tumbuh dengan kualitas berbeda tergantung pada cara perawatannya. Mari kita buat eksperimen menanam kacang hijau di rumah.

## Alat alat yang kamu butuhkan:

- 10 butir kacang hijau yang sudah direndam 24 jam
- 2 gelas plastik transparan 1 kapas yang dibasahi air sabun
- 1 kapas yang dibasahi air cuci beras

## Cara melakukan eksperimen:

- 1. Masukan kapas ke dasar gelas yang berbeda
- 2. Letakan 5 butir kacang hijau yang sudah direndam di atas masing-masing kapas
- 3. Simpan kedua gelas di tempat teduh yang mendapat cukup sinar matahari
- 4. Semprot air sabun ke kapas yang dibasahi air sabun setiap 3
- 5. Semprot air cuci beras ke kapas yang dibasahi air cuci beras setiap 3 hari
- Perhatikan perubahan tinggi kecambah setiap harinya

MARIN	MENANAM KACANG HIJAU!	
NAMA	:	
UMUR	*	_
TANGGAL	:	KOLOM STIKER

## CATATAN MISI

oel pertumbuhan kecambah:

aber percan	i di idi i	recourr	Dui II				
HARI	1	2	3	4	5	6	7
Air Sabun							
	cm	cm	cm	cm	cm	cm	cm
Air Beras							
	cm	cm	cm	cm	cm	cm	cm

- 1. Kacang mana yang tumbuh lebih baik?
- 2. Menurutmu, apa yang menyebabkan perbedaan ketinggian kecambah dalam percobaan kali ini?

## **O** KARTU MISI IN360°

## "Kopi Juga Bisa Manis"

ROASTER (PEMANGGANG) BIJI KOPI

## BEREKSPERIMEN MEMBUAT TEH!

## INSTRUKSI

Tergantung cara pembuatannya, kita bisa membuat teh dengan rasa yang berbeda-beda. Buatlah 3 teh dengan resep dan takaran yang berbeda, kemudian tuliskan pendapatmu tentang rasa dari masing-masing teh.

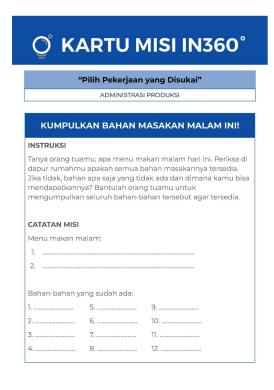
Bahan yang dibutuhkan: Air panas, teh seduh, gula/susu/madu (sesuai selera)

## CATATAN MISI

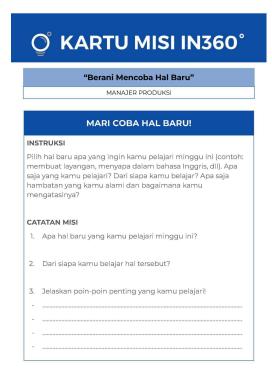
TEH 1	TFH 2	TFH 2
ICHI	ICHZ	IEHZ
Air ml	Air ml	Air ml
Jenis teh	Jenis teh	Jenis teh
Diseduh menit	Diseduh menit	Diseduh menit
*Gula/Susu/Madu	*Gula/Susu/Madu	*Gula/Susu/Madu
sdt	sdt	sdt
* coret yang tidak perlu		

## BEREKSPERIMEN MEMBUAT TEH! NAMA UMUR TANGGAL

- 1. Bagaimana rasa TEH 1?
- 2. Bagaimana rasa TEH 2?
- 3. Bagaimana rasa TEH 3?
- 4. Dari ketiga resep yang kamu coba, teh mana yang paling kamu suka?







М	ARI COBA HAL BARU!	$\bigcirc$
NAMA	:	V
UMUR TANGGAL	:	KOLOM STIKER
REFLEKSI		
tersebı	ıt?	
2. Bagain	nana kamu mengatasinya?	

## "Berinteraksi Lewat Masakan" PEMILIK RESTORAN MEMBANTU MENYIAPKAN MAKAN MALAM! INSTRUKSI Bantu orang tuamu untuk menyiapkan makan malam hari ini. Ceritakan pengalamanmu dengan gambar dan tulisan di kolom di bawah ini. Apa saja yang kamu pelajari selama proses memasak? Bagaimana respon anggota keluarga yang lain saat mereka mencicipi masakan yang kamu bantu buat? CATATAN MISI Cambar masakan malam ini

NAMA	:	Q
UMUR TANGGAL	:	KOLOM STIKER
IANGGAL		74.20 (10.10 (10
REFLEKSI		
1. Apa saja	a yang kamu pelajari selama	proses memasak?
	iana respon anggota keluarg: ipi masakan yang kamu bant	a yang lain saat merek u buat?

# "Mengajar Generasi Muda" PROFESOR CARI TAU TENTANG DESAMU INSTRUKSI Salah satu tugas profesor atau dosen adalah mengajarkan hal yang telah dipelajari kepada siswanya atau khalayak umum. Cari tahu lebih banyak tentang desa tempat tinggalmu. Kamu boleh bertanya kepada orang tua, guru, teman, dan orang di sekitarmu. Kemudian tuliskan temuanmu di bawah ini. CATATAN MISI 1. Gambar peta desamu



## KARTU MISI IN360

## "Jadi Animator Harus Tekun"

ANIMATOR

## INSTRUKSI

Pilih satu dari tujuh hari dalam seminggu (contoh: Selasa). Buatlah jadwal kegiatanmu di hari itu, termasuk jadwal belajar, bermain dan beristirahat. Di hari yang kamu tentukan, jalani harimu semaksimal mungkin dan tuliskan jurnal mu di hari itu.

## CATATAN MISI

JAM	RENCANA
5:00 - 7:00	
7:00 - 9:00	
9:00 - 11:00	
11:00 - 13:00	
13:00 - 15:00	
15:00 - 17:00	
17:00 - 19:00	
19:00 - 21:00	



## REFLEKSI

Bagaimana harimu berjalan?

JAM	JURNAL
5:00 - 7:00	
7:00 - 9:00	
9:00 - 11:00	
11:00 - 13:00	
13:00 - 15:00	
15:00 - 17:00	
17:00 - 19:00	
19:00 - 21:00	

- 1. Apakah harimu berjalan sesuai rencana? Apa yang membuatmu berhasil? Apa hambatan yang kamu alami?
- Menurutmu, apa yang bisa diperbaiki di kemudian hari agar kamu bisa menjalankan harimu sesuai rencana?

## KARTU MISI IN360°

## "Dari Hobi Jadi Pekerjaan"

ILLUSTRATOR GAME

## INSTRUKSI

Wawancara salah satu anggota keluargamu. Tanyakan beberapa pertanyaan seputar pekerjaan, hal yang disukai atau tidak disukai, cita-cita, dll. Tuliskan pertanyaan dan jawaban wawancara tersebut di bawah ini. Kemudian, buatlah karikatur dari anggota keluarga tersebut.i

## CATATAN MISI

Pertanyaan:

Jawaban: Jawaban:

Jawaban:



Karikatur:

## REFLEKSI

- 1. Karikatur siapa yang kamu buat?
- 2. Apa poin penting/karakter dari karikatur di atas?

## © KARTU MISI IN360° "Berkolaborasi dan Berkarya" PEMBUAT VIDEO

## MADI REDMAIN CAMBAD TANDEM

## INSTRUKSI

Mari menggambar komik 4 kolom! Tapi kali ini, kamu tidak akan menggambar sendiri. Ajak satu anggota keluarga atau temanmu untuk menggambar bersamamu. Tapi kalian harus menggambar sesuai peraturan di bawah ini:

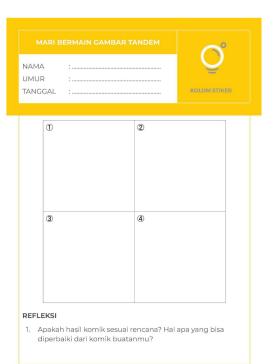
- Sebelum menggambar, diskusikan cerita apa yang akan kamu buat dalam waktu 5 menit. Kalian boleh membagi tugas siapa yang akan menggambar kolom pertama, kedua dan seterusnya.
   Siapkan alat gambar masing-masing dan mulai
- Siapkan alat gambar masing-masing dan mulai menggambar secara bergantian.
   Selama proses menggambar, kalian tidak boleh
- Selama proses menggambar, kalian tidak boleh berkomunikasi sama sekali!

Selamat mencoba!

## CATATAN MISI

- 1. Judul cerita:
- 2. Pembagian tugas

Kolom 1: Kolom 2: Kolom 3: Kolom 4:



## O KARTU MISI IN360°

## "Kejarlah Keinginanmu Dengan Usaha"

DESAINER FASHION

## MEMBUAT SKETSA BAJUTERADAN

## INSTRUKSI

Mari membuat sketsa baju lebaran untuk salah satu anggota keluargamu. Siapkan <u>penggaris atau pita meteran</u>untuk mengukur ukuran badannya, lalu tuliskan di bawah ini.

Setelah itu, gambar desain baju yang ingin kamu berikan untuk anggota keluarga tersebut dari berbagai sisi.

## CATATAN MISI

<u>Ukuran Badan</u> Lingkar Badan ......cm Panjang Lengan ......cm

Lebar Bahu ......cm Lingkar Pinggang......cm Lingkar Pinggul ......cm Desain Baju (Tampak Depan)

## 

## Baju (Tampak Belakang) Baju (Tampak Samping)

## REFLEKSI

- Bahan apa yang ingin kamu gunakan untuk membuat baju di atas?
- 2. Apakah kamu puas dengan desain baju yang kamu buat? Jelaskan!

## #Kita Bisa Karena Terbiasa" MARI MEMBUAT KEBIASAAN BAIK INSTRUKSI Pilih satu dari kegiatan di bawah untuk kamu latih setiap harinya selama 6 hari ke depan. Berolahraga pagi (15 menit) Minum 2 liter air Mengucapkan "terimakasih" kepada kedua orang tua Tuliskan kebiasaan yang kamu pilih, kemudian beri tanda ceklis jika kamu melakukannya hari itu. CATATAN MISI HARI KE KEBIASAAN: 1 2 3 4 5

1. Apakah kamu berhasil melakukan rutinitas yang kamu pi setiap hari? 2. Jika tidak, apa yang menjadi hambatan? 3. Apa yang kamu rasakan setelah menjalankan rutinitas kegiatan selama 6 hari?	UM	MA UR NGGAL	:				KOLOM STIKER
setiap hari?  2. Jika tidak, apa yang menjadi hambatan?  3. Apa yang kamu rasakan setelah menjalankan rutinitas	RE	FLEKSI					
Apa yang kamu rasakan setelah menjalankan rutinitas	1.			berhasil	melakul	kan rutin	itas yang kamu pi
	2.	Jika tid	ak, apa	yang me	enjadi ha	ımbatan'	?
	3.					n menjala	ankan rutinitas

## "Bermain Tapi Tidak Main-main" SUTRADARA KREATIF BERMAIN DENGAN WARNA INSTRUKSI Siapkan pensil warna atau alat mewarnai lainnya. Kita akan mewarnai lingkaran di bawah ini dengan tema "Bermain". Kira-kira warna apa saja yang melambangkan tema tersebut ya? CATATAN MISI



## A.2 Corner Facilitator Guideline

## **CAREER EXPLORATION CORNER 2022 @ PANGLUNGAN**

FACILITATOR GUIDELINE

## PROJECT GOAL

- 1. Promote aspiration among children in rural areas
- 2. Build a sense of connectedness between children and the world of work

## **PARTICIPANTS**

1. Participants are children aged 9 - 13 or equivalent to grades 4 - 6

## LOCISTIC

- 1. Internet connection
- 2. Table
- 3. 360 Video Viewing Set (2)
  - a. Cardboard viewer
  - b. Smartphone
  - c. Earphones
- 4. Stationery
  - a. Markers
  - b. Post-it
  - c. Pens/pencils
  - d. Stickers

## **EXPLORATION MATERIALS**

- 1. Display: https://padlet.com/fathimaassilmia/in360
- 2. Video URLs: https://www.youtube.com/@in360project/videos
- 3. Visual Journal Template: 🗏 CREATE
- 4. Mission Cards

## INTRODUCTION

Terimakasih telah bersedia mengikuti kegiatan IN360°, IN360° adalah layanan informasi karir berbasis komunitas. Lewat IN360° kalian bisa menjelajahi dunia pekerjaan dan menyaksikan cerita dari orang-orang yang bekerja di berbagai bidang.

Hari ini kalian akan bertemu dengan orang-orang tersebut dengan beberapa cara:

- Menonton cerita tentang orang yang sudah bekerja dalam format Video 360°. Video 360° adalah video panorama, dimana penonton bisa mengatur tampilan video dari berbagai sisi dengan cara menggerakan atau memutar kepala saat menonton.
- Membuat karya tentang pekerjaan yang ditonton.
- 3. Menceritakan kembali isi video dan berkomunikasi dengan orang di sekitarmu.
- 4. Menerima Kartu Misi untuk dikerjakan di rumah masing-masing.

## INSTRUCTION

1. Berikan penjelasan singkat tentang IN360° dan kegiatan yang akan dilakukan.

## EXPERIENCE

- 2. Persilahkan 2 anak untuk memilih 1 video masing-masing
- 3. Berikan penjelasan kepada anak tentang cara menonton video  $360^{\circ}$
- 4. Anak menonton video menggunakan peralatan yang disiapkan dengan bantuan fasilitator
- 5. Setelah selesai, pastikan anak tidak merasa pusing atau mual
- 6. Persilahkan anak untuk memberi bintang setelah menonton video

## REFLECT

- Berikan instruksi untuk mengimajinasikan diri mereka jika mereka menjadi seperti orang yang di dalam video melalui gambar future self portrait
- 8. Persilahkan anak untuk menggambar future self portrait
- 9. Berikan instruksi untuk menulis refleksi if I were
- 10. Persilahkn anak untuk menulis refleksi if I were

## INTERACT

- 11. Persilahkan anak untuk menceritakan hasil gambarnya kepada teman yang berada di lokasi
- 12. Jika anak memiliki pertanyaan kepada role model, persilahkan anak untuk menulis pertanyaannya di *Post-it*

## PRACTICE

- Berikan dan jelaskan Kartu Misi kepada siswa. Informasikan hadiah yang akan didapat setelah menyelesaikan Kartu Misi.
- 14. Silahkan beri penjelasan tambahan jika ada instruksi yang masih tidak dimengerti
- 15. Sertakan Instruksi Kartu Misi dan Survey Pasca Kegiatan Bagian 2 bersama dengan Kartu Misi

## B. Content Creation Workshop Guideline

## **B.1 IN360 Introduction**







## INTRODUCTION

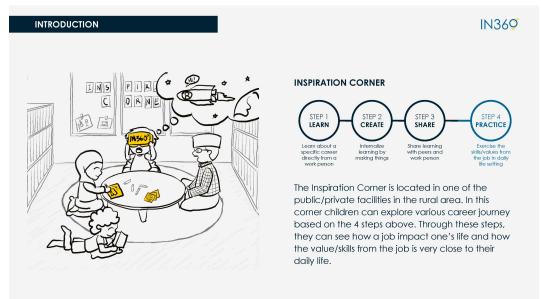
## WHAT IS IN360° PROJECT?

IN360° Project is a community-based career exploration service that connects children living in rural areas with the world of work.

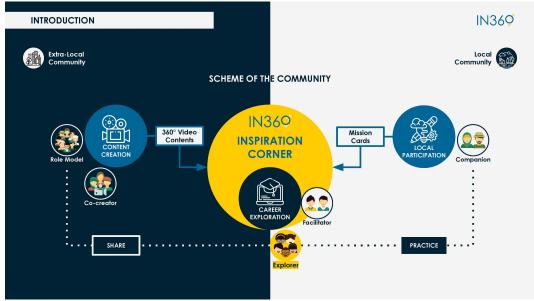
Aiming to **broaden children's horizon and raise their aspiration**, we design a career inspiration corner that allows children to explore various career story directly from the role model by utilizing internet and 360° video technology.

Our project involves various stakeholder in the both local and extralocal community to sustainably provide the service to children.









## CONTENT CREATION WORKSHOP

IN360°

As a part of support community building, one of our programs is a Content Creation Workshop. It's a one week program where Co-creators and Role Model will work together to create an engaging video about the career journey of the Role Model.

Co-creators will be equipped with job storytelling and 360° video production skills. The video is based on Role Model's real life story and made into an "office tour"-like video in 360° format.

The final video will be used as a learning material in children's career exploration through the inspiration corner in the rural areas.

## WORKSHOP SCHEDULE

Date: June 20th - 25th, 2022 (tentative)

SCHEDULE	ACTIVITY	LOCATION
Day 1	Empathize	Classroom
	Research & Interview (w/ Role Model)	Workplace
Day 2	Story Building	Classroom
	Production Planning	
Day 3	Field Production (w/ Role Model)	Workplace
Day 4	Post Production	Classroom
Day 5	Feedback and Improvement	
Day 6	Final Presentation (inviting Role Model)	

## CONTENT CREATION WORKSHOP

IN360°

## PREVIOUS WORKSHOPS

We have collaborated with 45 Co-creators and 14 Role Models across 3 countries. And produced 14 career story videos.

"I feel happy that I can make contribution to children in Indonesia" Co-creator

message to society using 360° video"

"I want spread the

Co-creator

this project to my friends in another company"

Role Model











## IN360° CONTENT CREATION WORKSHOP **VIDEO RESULTS** \*click the thumbnail to be redirected Coffee Roaster Restaurant Owner Biotechnologist Video Designer Game Illustrator Production Manager Production Administration

## CALL FOR ROLE MODEL

IN360°

## "I am proud of what I am doing with my job and I want to inspire children with my story."

Inspiring the younger generation is a wonderful thing to do. We are looking for people who would like to share about their job, career journey and passion through engaging video content.

Together with co-creators, allocate some of your time for the interview and video production process. We are also inviting you to see the final video created by the co-creators.

## JOIN US!

Leave your contact **here** if you're interested and we'll call you back!

## COMMITMENT

## 1. Research and Interview

Share about your job and your career journey to the co-creators Date: June 20th, 2022 | Duration: 1 hour | Time: 13:00 - 14:00 Location: ITB Ganesha or Your workplace

## 2. Video production

Act as yourself in a video about your career Date: June 22th, 2022 | Duration: 2-4 hour | Time: TBD Location: Your workplace

## 3. Final Presentation

Enjoy the final video and celebrate with co-creators Date: June 25th, 2022 | Duration: 1.5 hour | Time: TBA Location: ITB Ganesha Campus

IN360 Project Keio University Graduate School of Media Design e-mail: in360-group@keio.jp

## **B.2** Facilitator Guideline

## **CONTENT CREATION WORKSHOP 2022 @ ITB**

FACILITATOR GUIDELINE

## **PARTICIPANTS**

- Participants are university students or students who will soon join the workforce
   Participants are divided into groups of 2-3 people
- 3. All participants must fill in the pre-survey prior to the workshop

## ROLE MODELS (Form)



## LOGISTIC

- Classroom with projector or display
   Computer and connector for presentation slide
- Internet connection
   Video Production Set (1 per group)
- 4. Video Production Set (1 per group)
  a. 360 camera
  b. Extra battery
  c. Monopod + stand
  d. Microphone + audio recorder
  e. Micro SD 128GB

  5. 360 Video Viewing Set (1 per group)
  a. Cardboard viewer
  b. Smartphone
  c. Earphones

  6. Computers for editing, (RAM min. 8GB)

  7. Stationery
  a. Markers
  b. Post-it
  c. Pens/pencils

  8. Documentation

- Documentation
   a. Camera
   b. Video recorder
  - c. Tripod

## **WORKSHOP MATERIALS**

- 1. Slide
  - a. Slide □ 1 INTRODUCTION & EMPATHIZE
    b. Slide □ 2 RESEARCH & INTERVIEW
    c. Slide □ 3 STORY BUILDING

  - d. Slide 4 PRODUCTION PLANNING
- e. Slide 🗖 6 POST PRODUCTION
- 2. Worksheets
  - a. Activity Around Us Worksheets 1.pdf
  - b. Career Paths Worksheets 2.pdf
  - c. Interview questions Worksheets 3.pdf
  - d. Interview Mapping Worksheets 4.pdf
  - e. Storyline Worksheets 5.pdf
  - f. Storyboard Worksheets 6.pdf
- 3. Softwares
  - a. Camera App/Softwares
    - i. Insta360 App (Mobile):
      - iOS: https://apps.apple.com/app/id1491299654
      - Android:

https://file.insta360.com/static/infr\_base/b1bf031d27e22771b6d337e8ac2 02e49/Insta360 v1.16.0.apk

- Insta360 Studio 2022 (PC):
  - https://file.insta360.com/static/infr\_base/d438e0e6c3cb93dcdd15c8ad68e79685/l nsta360%20Studio%202022 Winx64 4.3.2 build 202206131758.exe
- b. Editing Software
  - i. Adobe Premiere Pro CC Free Trial:
    - https://www.adobe.com/sea/products/premiere.html
- 4. Video examples
  - a. Berani Mencoba Hal Baru Manajer produksi
  - b. Berkolaborasi dan Berkarya Pembuat Video
  - c. Cinta Kopi, Cinta Alam QC kopi

## **PROGRAM**

## **WORKSHOP DAY 1**

Main facilitator: Bita

## 1 EMPATHIZE (60 mins) **OBJECTIVES**

Participants ready to work as a team Participants understand the purpose of the video creation process

ACTIVITY	DUR	MATERIAL	LOCATION
OPENING - Introduction to IN360	10 mins	Slide 1 INTRODUCTION &	DKV 1
INTRODUCTION  - Word Charades Game  - Workshop overview	10 mins	Slide 1 INTRODUCTION & Icebreaking	DKV 1

		□ WORD CHARADES	
EMPATHIZE  - Activity 1: Jobs Around Us - Activity 2: Career Paths	40 mins	Slide  1 INTRODUCTION & Worksheets Worksheets 1.pdf Worksheets 2.pdf Stationery	DKV 1
2 RESEARCH & INTERVIEW (120 mins)			
OBJECTIVES  - Participants learn about interview skills - Participant able to conduct an interview prope	erly		
ACTIVITY	DUR	MATERIAL	LOCATION
RESEARCH  - Interview tips and trick (15 mins)  - Research and making questions (33 mins)  - Task Distribution (2 mins)	50 mins	Slide 2 RESEARCH & INTE Worksheet Worksheets 3.pdf	DKV 1
CLOSING - Reflection - Announcement	10 mins		DKV 1
BREAK TIME	60 mins		
INTERVIEW  - Introduction to role model - Interview the role model - Deciding on shooting time	60 mins	Each team - Camera - Worksheet 3/note - Pen/pencil	Workplac es

WORKSHOP DAY 2 Main facilitator: Anwar

3 STORY BUILDING (60 mins)					
OBJECTIVES  - Participants able to transform the interview result into a story					
ACTIVITY	DUR	MATERIAL	LOCATION		
OPENING - Reflection of Field Interview	5 mins		DKV 1		
STORY BUILDING  - Interview mapping  - Decide the "Key Point"  - Create storyline	45 mins	Slide 3 STORY BUILDING Worksheets Worksheets 4.pdf Worksheets 5.pdf	DKV 1		
BREAK TIME	10 mins				
4 PRODUCTION PLANNING (120 mins)					

- OBJECTIVES

   Participants understand the differences between conventional camera and 360 camera
   Praticipants able to shoot using 360 camera

	1 ranoparis	40.0	311001	031119 000	o di i i oi d
-	<b>Participants</b>	have a	clear	plan for the	ne shootina

ACTIVITY	DUR	MATERIAL	LOCATION
INTRODUCTION TO 360 VIDEO  - 360 Video theory  - 360 video experience  - 360 video simulation	30 mins	Slide 4 PRODUCTION PL 360 Video Viewing Set Video Examples	DKV 1
STORYBOARD & SHOOTING PLAN  - 360-degree video storyboard  - Shooting plan	50 mins	Slide  4 PRODUCTION PL Worksheet Worksheets 6.pdf	DKV 1
360 VIDEO CAMERA HANDS-ON  - Camera mechanic  - Camera and audio technique  - Controlling the camera with mobile app	30 mins	Slide 4 PRODUCTION PL Video Production Set	DKV 1
CLOSING - Reflection - Announcement	10 mins		DKV 1

## WORKSHOP DAY 3

## 5 FIELD PRODUCTION OBJECTIVES - Participants able to collect all the footage for the video ACTIVITY DUR MATERIAL LOCATION Video Production Set Worksheets Storyboard Worksheets 5.pdf Worksheets 6.pdf Workplac SHOOTING

## WORKSHOP DAY 4

Main facilitator: Wendy

6 POSI-PRODUCTION (180 mins)				
OBJECTIVES - Participants able to edit their footage into the final video				
ACTIVITY	DUR	MATERIAL	LOCATION	
OPENING - Reflection of Field Production	10 mins		DKV 1	
SOFTWARE HANDS-ON  - Export video from insta360  - Try editing with Adobe Premiere Pro CC	40 mins	Slide George 6 POST PRODUCTION Video footages Computers	DKV 1	

EDITING - Editing video part 1	120 mins	Computers	DKV 1
CLOSING - Reflection - Announcement	10 mins		DKV 1

## WORKSHOP DAY 5 Main facilitator:

6 POST-PRODUCTION (180 mins)

OBJECTIVES - Participants finish the post production process				
ACTIVITY	DUR	MATERIAL	LOCATION	
VIDEO PROGRESS - Presentation - Peer feedback	30 mins		Computer Lab	
EDITING  - Editing video part 2 - Rendering	120 mins		Computer Lab	
PRESENTATION PREPARATION  - Group discussion  - Prepare presentation slide	20 mins		Computer Lab	
CLOSING - Reflection - Announcement	10 mins		Computer Lab	

WORKSHOP DAY 6 Main facilitator: Wendy

7 PRESENTATION (180 mins)			
OBJECTIVES  - Community building among participants and re - Celebration of the completion of the workshop			
OPENING  - Welcoming guest  - Introduction to IN360  - Workshop overview	10 mins		DKV 1
FINAL PRESENTATION  - Presentation (5 mins + 2 mins feedback)  - Demo	60 mins	Group slides Smartphone Earphone	DKV 1
CLOSING - Certificate - Group photo	30 mins	Certificates Camera Tripod	DKV 1

## **B.3** Video Making Guideline

#### IN360 Project: A Guide to Immersive Storytelling for Career Education

Elvaretta Angelina Gunawan Keio University Graduate School of Media Design

#### Abstract

Career education is a lifelong process. It is important to expose students to these key career concepts early in their school careers. IN360 project provide a Digital Storytelling Workshop for their content creators to create 360 "ideo content. Their Digital Storytelling workshops shown that different skills and background resulted in different video quality. This paper talks about designing a story building guideline for IN360" projects' Digital Storytelling workshop by utilizing 360" video for career education, based on literature review and observation from previous workshops.

Keywords - 360° video, Career Education, Storytelling

#### Introduction

At elementary level, students are already making choices that will impact their future [3]. According to 2017 report by Student Research Foundation, career pathways decisions are influenced by a number of factors. Providing children with a wide range of occupation and bringing them to meet some successful people in the field is suitable in early stages of career education. It also provide the information for children to explore themselves [1]. In 360 is a project that focusing on alternative method to deliver career education for elementary school students aged 9-12 utilizing 360° video and Google Cardboard [1]. As a part of their content creation program, they provided a Digital Storytelling workshop and collaborate with high school and university students to create career information content utilizing 360° video. Their content creators come from different back-

Their content creators come from different back-ground and have different video producing skills. Other than that, there is no one approach and no fully established screen grammar associated with a 360  $^{\circ}$  narrative yet [2].

#### 2 Research Goal

This study aims to design a story creation guidelines to help IN360° projects content cre-ators, especially those without video or design re-lated background, to create a story in 360° videos environment for career education purpose.

#### 3 Literature Review

#### 3.1 360° Videos

Instead of watching a movie through a 'win-dow', audience of 360' video are in and become a part of the scene [8]. It can give the sensation of being there, or so called the presence [2]. 360° videos has a panoramic setting which gives free-dom to the audiences to decide where to look [7]. Therefore, they could be easily become distracted by surroundings even ignore the story [7][9]. Former research considered two main dimensions, partartive and technical impression as appropri-Former research considered two main dimensions, narrative and technical immersion, as appropriate for 360 ° video [6]. Narrative immersion focuses on the influence of a story 's content and structure on the viewer. As for technical immersion, the acknowledgement of the viewer by charsol, in cannot regener or the two yet al-acters can be pinpointed through looks, gestures, and words the actors direct towards the camera. It could enhance the feeling of being present in the story world [11].

#### 3.2 Narrative story telling in 360 $^\circ$ video format

Even though the audience can not influence Even though the audience can not influence the story like in traditional video formats, there are possibilities to make them feel the illusion of interactivity [6]. VR medium relies on the same storytelling as other narrative screen media [2]. Both of traditional and 360° narratives plot is driven by characters, places, or actions that build up the story [6]. More than just telling the story

to audiences, content creators have to understand that they are charged to mold the audiences experience inside the story. It is important for content creators to provide a 'core experience', a single-focused and engaging viewing experience. [2][8].

#### 3.3 Digital Storytelling workshop by IN360 project

IN360s' Digital Storytelling workshop was conducted in three days. The contents of the workshop are shooting preparation, shooting then video editing. Preparation part are introducing IN360 project and career education, interview technique, demo and interview with role model, story building, storyboard and shooting plan.

#### 4 Design

#### 4.1 Design Process

Content creators are expected to understand the purpose of the video, value of the role model and the use of 360° videos tools from the previous part of Digital Storytelling workshop [9]. Previous part of the workshop has given content creators the chance to get the informations that has to be included in video, which are; introduction (who, what, where, when), working process (how), working value (why), career requirement and encouragement.

To deliver the information and engage the audiences, content creators can give some cues using narrative and technical immersion. Both aspects are used to create the immersive experience. These elements were defined based on literature review and evaluation from the result of previous Digital Storytelling workshop.

#### 4.1.1 Directing the Attention

To keep audiences engaged in the core experience or the main story line, actors can use verbal and nonverbal cues to treat the camera as if they are treating audiences. Rather than visual, audio-visual cues are more commonly used. Orientation cues can direct audience to follow certain movement and explore their surrounding. Several cues can be combined to direct audience attention and to highlight the detail within panoramic view [6]

 Orientation cues can direct audiences to follow certain movement, look for the source of motion or sound and explore visual surroundings

- Audio cues are good to grab the attention of the user to prepare for some important event. [6]. It includes character talking, sound effects, screams, music, etc.
- Visual cues include character movement, gaze, text or graphics, lighting, special effects and camera movements.

#### 4.1.2 Understanding the Audience

Each age group has different stages of cognitive development. To create a meaningful story experience children aged 9-12, it is necessary for content creators to understand their cognitive development and the language that they speak. In that case, content creators are suggested to:

- Keep the story simple but with interesting plot. Simplifying the story means that to cut the things that does not work towards the goal [5]
- Use vivid language that suit their language level, in this case, it is suggested to create a video script before the shooting process
- 360 camera video angle will be elementary school point of view

#### 4.2 Design Concept

The purpose of the video is to show children the real working environment and make them experience the joy and passion of their role models. Story guidelines were designed based on literature review, evaluation, and observation of the result from previous Digital Storytelling Workshop. Thus, we came up with the main story outline and some examples that will be put in the guidelines.

#### 4.2.1 Storytelling Elements

#### 1. Settings

Introducing the time and places, letting audience to adjust themselves in a new virtual world that they have just entered, especially in the beginning of the experience.

#### 2. Characters

In order to create a single-focused experience, it is suggested to make the story revolves around the main characters. The characters in the story are:

#### - Students (Audiences)

As they are going to be 'present' in the story, it is important to define their role at the beginning of the experience.

#### - Role Models

Will be the most important character in the story since creators have to deliver information about role models. They are expected to guide or direct audience in the story.

#### 3. Point of View

Content creators are suggested to use first or second person point of view where role model treats the camera as a character within the story to give an illusion of interacting with their surroundings.

#### 4. Plot

Freytag's Pyramid goes through five dramatic stages; exposition, rising action, climax, falling action, and resolution. [4]

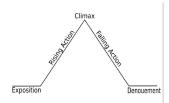


Figure 1: Freytag 's Pyramid

#### 5. Theme

Experiencing the joy and passion of the role model by taking them to the real working environment

### 4.2.2 Story Outline



Figure 2: Story Outline

#### 1. Video Bumper and Title

The first step to prepare audiences for the experience. At the beginning of experience, Google Cardboard are going to be used in the Content Delivery Workshop. To spare some time to put the phone inside the cardboard, we put video title and creators name in this scene. Bumper video template are provided for content creators, so they can change the video title according to their title.

#### 2. Introduction

Imparting the background information for the audiences as this might be something new for them. Content creators can choose which one to be introduced first and make adjustments according to their preferences.

#### - Settings

Audience will be taken to role models' working area. It is suggested to give audience longer duration to let them explore and adjust themselves to the environment. If the settings is being introduced after role model, role model can describe the surroundings to children.

#### - Role Models

Children aged 9-12 still have fewer knowledge and vocabulary, it is necessary to introduce who the role models' are, their job titles and also short brief about what they are doing with a simple word.

#### 3. Working Process and Environment

#### - Working process

Showing how role model do their job. This scene could include what tools do they use, explaining the step by step that role model has to do. It was stated that audiences wished the duration was longer especially because they wanted to know more about how things are being done in work [1].

#### - Working environment

It is also interesting to bring the audience on a tour around their working places or to give some time for the audience to look around and see what is happening around them. For both cases, it is suggested to slower the pace so audiences can have more time to understand, explore or examine the

#### 4. Working Value

To deliver their working value, role models can explain the problems or challenges that they have to face. If possible, other option is to have the 'problem' happening and role models can invite the audience to solve it together.

After the problem is resolved, the most important thing to deliver is the reason why role models still love this job and what is the social impact.

#### 5. Conclusion and Encouragement

To deliver the idea about how role models can achieve such a skill to face the challenges, they can tell the audience about some basic skills that audiences can learn from their elementary school years. Role model can sum up the whole experience and give some words of encouragement to audiences.

#### 6. Outro

Content creators can use the outro template made for IN360 project, welcome audiences back to IN360 world or fade out the video then put credits here.

#### 4.2.3 Other Video Elements

#### 1. Visual

If content creators happen to be included in the video, they can act as one of the staff and dress like them to blend in with the environment. For storytelling purposes, exploration and modification of the real environment is plausible.

#### 2. Narration/Dialogue

Narration should use vivid language that suit audiences language level. Off camera narrator (voice over) can be used to describe the environment or difficult situation going on in the scene. Video Designer video [10] create a good example.

#### 3. Duration

The video duration should not be so long as to make the user feel bored, but cannot be too fast so to let the user have some time for exploration. The assumed appropriate duration of the video is between 5 - 10 minutes.

### 4. Cues/Gimmick

Gimmicks can keep the viewers' interest

and make the video fun. Creators can use audio cues such as sound effect and background music to create the mood. Video Designer video [10] use a bubble soap to invite interaction with audience.

#### 5 Evaluation Plan

The story creation guideline is designed to help IN360 project to create 360 videos about career education for children aged 9-12. This guideline will provide new information about creating a story about certain profession in 3600 degree environment. The evaluation questions are:

- Does the guideline make content creators learn new knowledge about storytelling in 360 video environment?
- Do content creators feel that the guideline is helping them to create the story in 360 video environment?
- Does the guidelines improve the story outline quality?

The guideline is going to be tested on some college students on July and qualitative research method is going to be used. Content creators are going to build a story until script-writing phase. To collect data for the first and second questions, a questionnaire and interview will be conducted after the session.

As it is necessary to understand if the guideline really improve the of story building process and the script-writing result, same content creators will be asked to build the story both without and with the guidelines. An interview result will be provided for content creators. The result will be compared then analyzed based on how the new knowledge or elements that they got from the guidelines has improved the quality of the story. Collected data and feedback will be used to improve the guidelines.

#### 6 Discussion for Future Works

Based on the result from user test conducted in July, the improved story building guideline is going to be tested to some students in Indonesia. A Digital Storytelling workshop will be conducted and the guidelines will be implemented in the workshop. The video result is going to be tested to children aged 9-12 in Indonesia. Their experience will be recorded and an interview is

4

going to be conducted to understand if they get some new information about the job and if they found the video interesting.

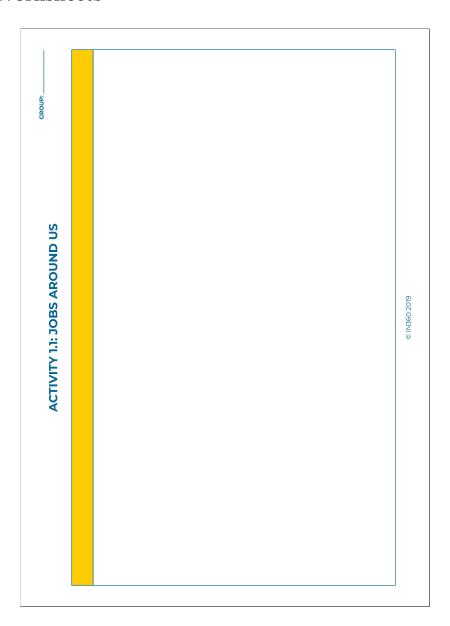
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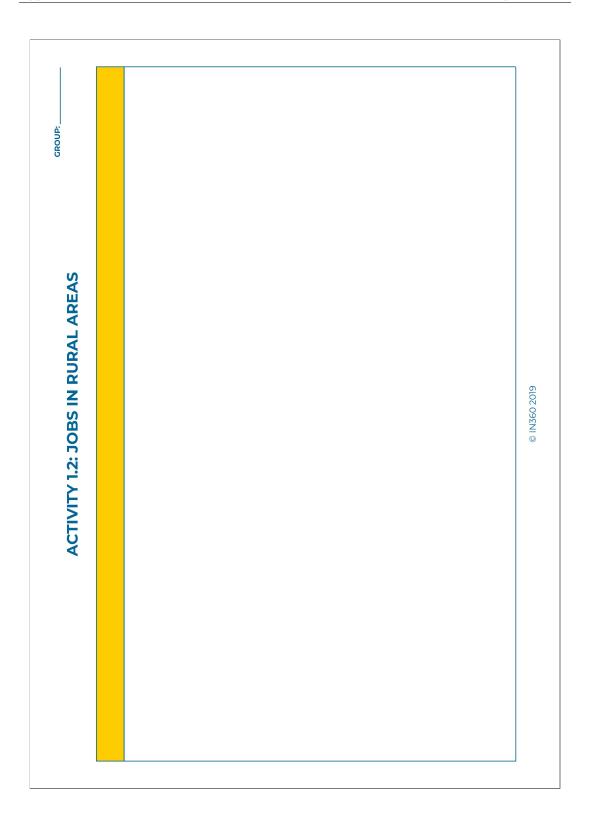
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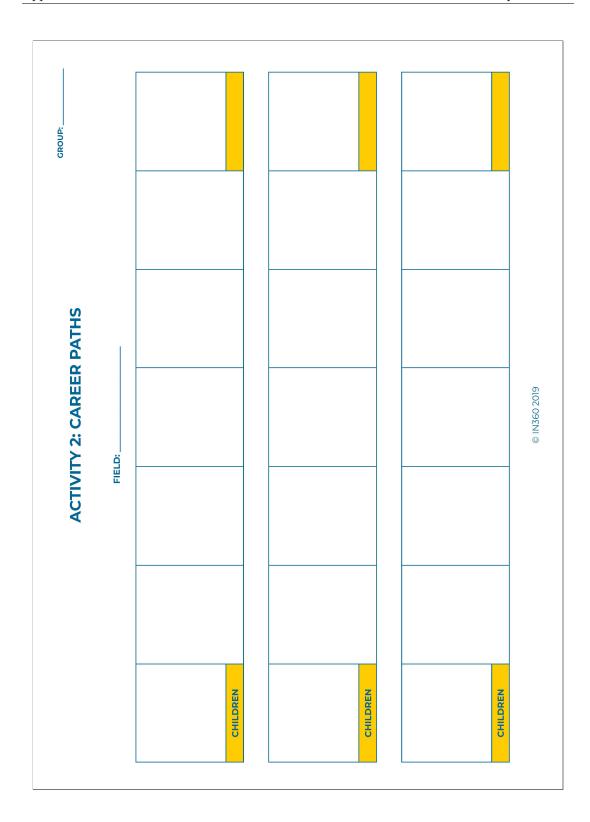
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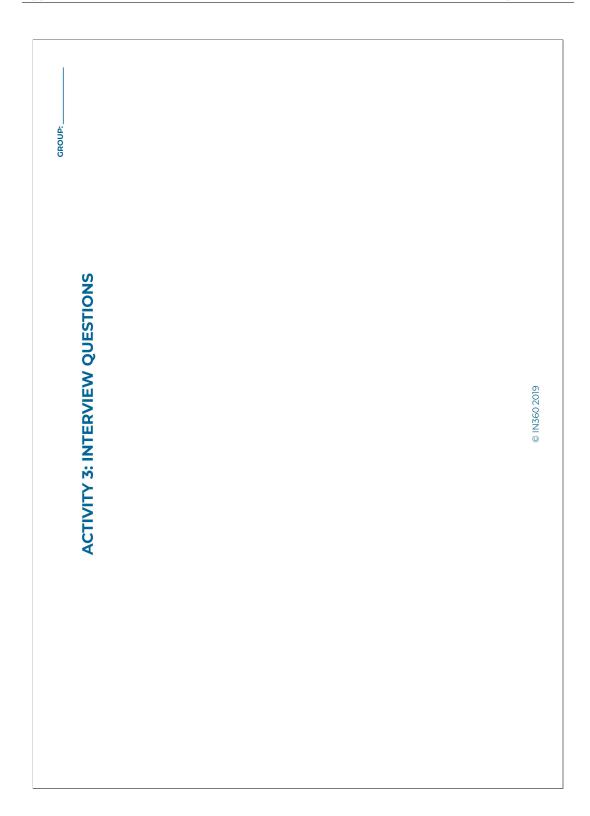
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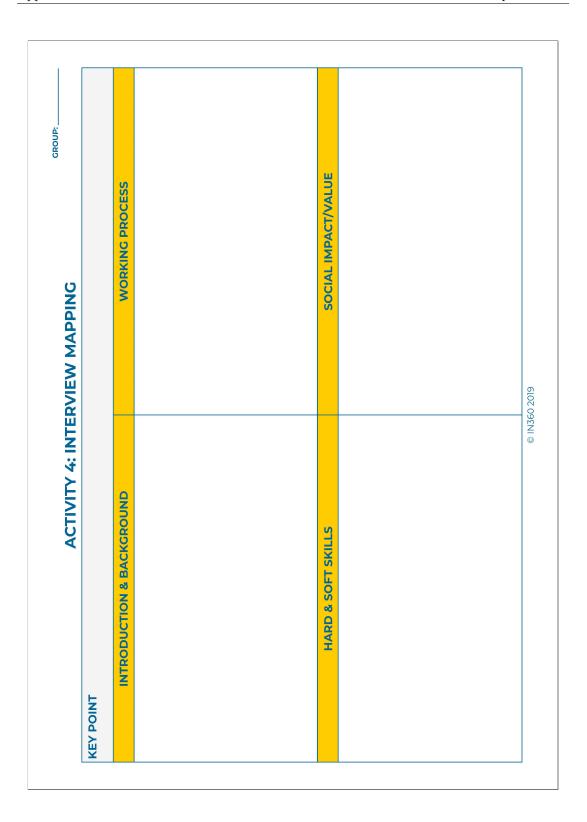
## B.4 Worksheets

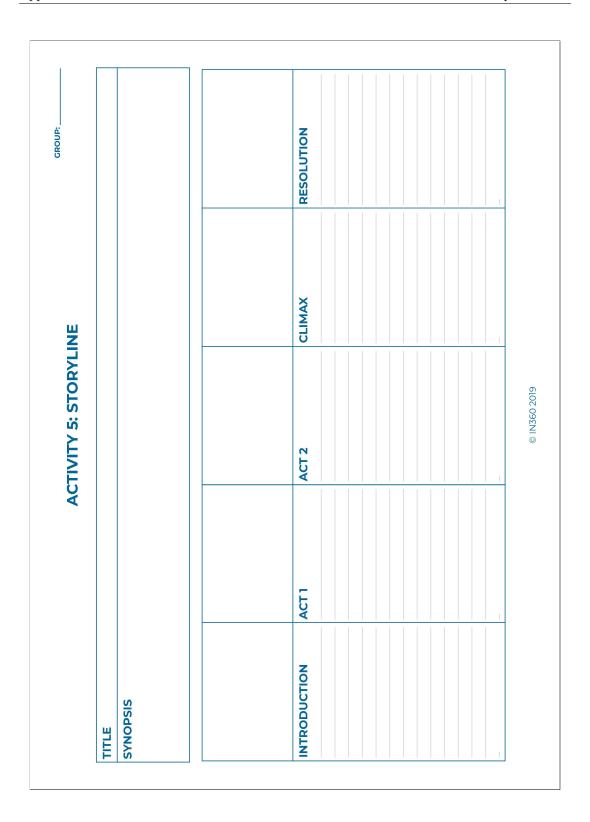














## **B.5** Activity Report



#### Dear Participants

Terimakasih atas kontribusinya dalam **Content Creation Workshop** yang diselenggarakan oleh **IN360° Project** atas kerjasama Keio Media Design dan Desain Komunikasi Visual ITB, pada **20 - 25 Juni 2022** lalu.

## IN360°



IN360°

Hasil video 360 yang telah dibuat oleh rekan-rekan mahasiswa, berisikan cerita karier para Role Model, bisa dilihat di **sini**.

IN360°

Video-video tersebut telah kami hadirkan kepada adik-adik kelas 5 dan 6 Sekolah Dasar melalui **Pojok Inspirasi** di **Desa Panglungan, Wonosalam, Jombang** pada **5 - 14 Juli 2022**.

IN360°



IN360°

Berikut adalah **komentar dan kesan** dari adik-adik di Desa Panglungan setelah menonton videonya.

Jika berkenan silahkan **membalas komentar** tersebut di tempat yang telah disediakan.

IN360°



## "Kejarlah Keinginanmu Dengan Usaha" - Desainer Fashion 10360

Role Model: Prafitra Viniani

Video oleh: Elodie Ursula Saksono, Enjelyka Priskila, Gabriela Panggabean, Tio Angel Bekti Hutomo





### "Bermain Tapi Tidak Main-Main" - Sutradara Kreatif



Role model: Pande Made Anagha Divantara Video oleh: Humaira Azizah Noor, Maqrifal Fajar Arhef, Shafa Pyerwaya Adlianty

[020] Terimakasih sudah mengajari hal baik dan bermanfaat [028] Video ini sangat bagus dan kreatif

[029] Videonya sangat bagus

Terimakasih, video ini bermanfaat banget

[041] Ka terimakasih sudah mengajari

Reply

Reply

Reply



#### "Bermain Tapi Tidak Main-Main" - Sutradara Kreatif

IN360°

Role model: Pande Made Anagha Divantara Video oleh: Humaira Azizah Noor, Maqrifal Fajar Arhef, Shafa Pyerwaya Adlianty





### "Kita Bisa Karena Terbiasa" - Manajer Kreatif

IN360°

Role model: Rio Julian Video oleh: Aurellia Shanaya Muttaqy, Gisella Okky Samosir, Salsabila Qurrata A'yun







## C. Local Participation Guideline

## C.1 Facilitator Guideline

## LOCAL PARTICIPATION WORKSHOP 2022 @ PANGLUNGAN FACILITATOR GUIDELINE PROJECT GOAL Build a sense of community among local stakeholders of IN360 Produce Mission Cards to be used in the Career Exploration Corner **PARTICIPANTS** Participants are parents and teachers from the local area Participants are divided into groups of 3 people (total 3-4 groups) 1. Classroom with projector or display 2. Computer and connector for presentation slide Compose. Internet connection d. 360 Video Viewing Set (1 per group) a. Cardboard viewer b. Smartphone Symptones c. Earphones 5. Stationery a. Markers b. Post-it c. Pens/pencils 6. Documentation a. Camera b. Video recorder c. Tripod WORKSHOP MATERIALS 1. Slide a. LOKAKARYA PARTISIPASI LOKAL 2. Worksheets a. LEMBAR KERJA "KARTU MISI".pdf 3. Video examples a. https://www.voutube.com/watch?v=tBllq3woSlo b. https://www.youtube.com/watch?v=-leKTbSkdakc. https://www.youtube.com/watch?v=AWA1a1s-EMA d. Berani Mencoba Hal Baru - Manajer produksi e. Berkolaborasi dan Berkarya - Pembuat Video f. Cinta Kopi, Cinta Alam - QC kopi **PROGRAM** Main facilitator: Anwar 1 INTRODUCTION / 09:00 - 09:30 (30 mins) **OBJECTIVES** Participants get to know each other and the facilitators Participants ready to work as a team

<ul> <li>Participants understand the purpose of the pro</li> </ul>	ject and the	workshop	
ACTIVITY	DUR	MATERIAL	NOTE
OPENING - Facilitator introduction	3 mins	Slide  LOKAKARYA PARTI	
INTRODUCTION - IN360 introduction - Workshop overview	12 mins	Slide  LOKAKARYA PARTI	
ICE BREAKING - Line Up game	15 mins	Slide  LOKAKARYA PARTI	
2 IDEATION / 09:30 - 10:15 (45 mins)			
OBJECTIVES  - Participants understand the message from the participants able to come up with mission comes.		a group	
ACTIVITY	DUR	MATERIAL	NOTE
RESEARCH  - Watching IN360 video  - Discuss two main points of the video  - The message  - The working process	15 mins	Slide LOKAKARYA PARTI 360 Video Viewing Set	
3-STEPS IDEATION - Step 1: Generation - Step 2: Build - Step 3: Selection	30 mins	Slide LOKAKARYA PARTI Stationery	
3 RAPID PROTOTYPE / 10:15 - 10:35 (20 mins)			
OBJECTIVES  - Participants come up with 2 or more alterno	atives for the r	mission cards	
ACTIVITY	DUR	MATERIAL	NOTE
PROTOTYPE #1 - Designing 2 alternatives	20 mins	Slide LOKAKARYA PARTI Worksheet LEMBAR KERJA "KA	
BREAK TIME / 10:35 - 10:45	10 mins		
4 ITERATION / 10:45 - 11:15 (30 mins)			
OBJECTIVES  - Participants receive feedback from peers  - Participants can make decision on the final  - Participants able to come up with the final			
ACTIVITY	DUR	MATERIAL	NOTE
NUTERIA A REFORMATIONA	10 mins	Slide	
INTERIM PRESENTATION - 2 minute presentation (per 2 groups)	TO MIINS	LOKAKARYA PARTI	

- Peer feedback		Worksheet ■ LEMBAR KERJA "KA	
PROTOTYPE #2 - Design selection - Design improvement	20 mins	Slide LOKAKARYA PARTI Worksheet LEMBAR KERJA "KA	
5 FINAL PRESENTATION / 11:15 - 11:45 (30 mins)	<u> </u>		
OBJECTIVES - Participants share their final product to	the class		
ACTIVITY	DUR	MATERIAL	NOT
PRESENTATION  - Presentation (format: skit)  - Comments from audiences	30 mins	Slide LOKAKARYA PARTI	
6 CLOSING / 11: 45 - 12:00 (15 mins)	<u> </u>		
OBJECTIVES - Wrap up			
ACTIVITY	DUR	MATERIAL	NOT
SURVEY - Filling out post-activity survey	10 mins	Survey (printed out)	
CLOSING - Closing - Announcement - Group photo	5 mins	Slide LOKAKARYA PARTI Camera	

## C.2 Worksheets

	LEMBAR KERJA "KARTU MISI"	
KELOMPOK:	ANGGOTA:	
JUDUL VIDEO		
NAMA PEKERJAAN		
JUDUL MISI		
INSTRUKSI		
LAPORAN KEGIATAN		
REFLEKSI		

## D. Survey Result

## D.1 Children's Survey

### Research Manual and Consent Form

2022/06/13

ENGLISH TRANSLATION

#### RESEARCH MANUAL

IN360° - COMMUNITY-BASED CAREER EXPLORATION SERVICE

Please read this research manual. If you are willing to participate, please fill out and sign the Consent Form provided.

#### Research Goal

Building aspirations and connections with the world of work for children aged 9-13 years living in rural areas by designing community-based career exploration services.

#### Methodology

IN360° is a community-based career exploration service that connects children living in rural areas with the world of work. Aiming to build on their aspirations, we designed a career exploration activity that allows children to learn about various career paths directly from people who work in their fields by utilizing the internet and 360° video technology. This activity is divided into 2 parts. Part 1 is the Learn, Create, and Share steps which are carried out in the Inspiration Corner. Part 2 is the Practice stage where children will complete Mission Cards at their respective homes. Through these steps, they can see how a job impacts a person's life and how the value/skill of the job is transferable to their daily life.

#### Research procedure

#### Part 1: Inspiration Corne

Part 1 of this activity will last for approximately 15 minutes in the Inspiration Corner.

- The child will receive a brief explanation of this activity.
- Children go through the activities of the Learn (watching 360° videos), Create (draw), and Share (present their work) steps.
- 3. Children receive Mission Cards to work on at home.
- Children fill out the Post-Activity Survey provided.

#### Part 2: Mission Card

Children who join Part 2 must join Part 1 first. Activities in Part 2 will be guided by each guardian. We ask for your willingness to accompany your childs activities at home.

- 1. Prepare the activity materials according to the instructions on the Mission Card that your child brought with them.
- 2. Accompany the child in carrying out the activities instructed.
  - Please note that the processing time of each mission varies from 1 day to 1 week.
  - However, the total duration of the work ranges from 1 to 2 hours.
- After completing the mission, please complete the Post-Activity Survey provided for you and your child separately.
- $\textbf{4.} \quad \text{Collect the completed Mission Cards and Post-Activity Surveys to the IN 360° team.} \\$

Some of the participants who have been previously selected will be visited by our team, their activities will be recorded and an interview will be conducted afterward.

2022/06/13

ENGLISH TRANSLATION

#### **Activity Implementation Schedule**

Part 1: Scheduled in the Inspiration Corner in 2 rounds

- Round 1 will take place from 5 8 July 2022, 13:00 15:00 WIB
- Round II will take place from 11 14 July 2022, 13:00 15:00 WIB

Part 2: Can be done anytime between 5 - 15 July 2022 at your own homes

- The collection of Mission Cards and Post-Activity Surveys can be done when visiting the Inspiration Corner in the second round or a maximum of 22 July 2022.

#### Personal Data Protection

Through this research, data in the form of surveys, photo and video recordings, and interviews (for some participants) will be taken. Data will be shared within the Keio University Graduate School of Media Design and with research collaborators. However, personal information such as participant addresses and contact information will not be disclosed.

The data collected will only be used for the purpose of research reports by KMD (internal presentations, conference presentations, doctoral dissertations, reports, etc.)

Data will be securely stored in the cloud/storage managed by KMD, and will not leak to outside parties. In addition, data will be numbered and anonymized when presented at professional conferences, academic journals, and internal research meetings. Data will be deleted within three years after the completion of the study.

#### Safety Management

All activities will be carried out under adult supervision at all times. All precautions for possible injuries and accidents to children will be taken. In the event of any unusual behavior or trouble with the children, the experiment will be terminated immediately.

#### Right to Cancel Your Participation

You may at any time withdraw your participation from this research. If you have any questions, don't hesitate to ask.

#### Intellectual property rights

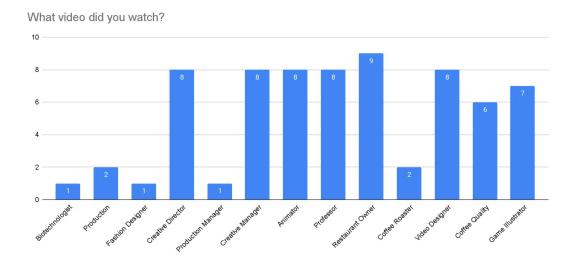
Depending on the progress of the research, intellectual property rights such as patents may be obtained. Attribution of intellectual property rights is decided in consultation with researchers, Keio University, and collaborators. The results of the research are not the property of the data provider.

If you are willing to participate, please fill out and sign the Consent Form provided. We really appreciate your cooperation in this research. If you have any questions, don't hesitate to contact us.

#### Contact

	ENGLISH TRANSLATION
CONSENT OF PARTICI	PATION, DATA USE, AND DOCUMENTATION
I, the undersigned, the parent/gua	ardian of:
Child's name :	
Participation Consent	
	al" of the career exploration activity carried out by IN360°, ted permission to my child to participate in this research.
☐ Agree	
Data Use Consent	
Give full rights to the IN360° Tear divulging the child's personal iden	n to use the data obtained for research purposes, without tity.
☐ Agree	☐ Disagree
Image and Video Use Consent	
	videos taken from research activities for the purpose of Graduate School of Media Design.
☐ Agree to the use of photos	and videos from research activities
☐ Agree on the use of pho children's faces	tos and videos from research activities, with mosaics on
□ Disagree	
	t coercion from any party and if there is any inconvenience will contact the IN360° Team immediately.
Jombang,(Date)/(Mont	h)/2022
Name and signature of parent/gu	ardian

## Corner Exploration Survey



## What is your reason to choose the video?

- It looks interesting
- I want to know how to grow coffee
- It looks interesting
- It looks interesting
- It looks interesting
- It is a nice video
- It is a nice video
- I am interested in the video
- I want to be an animator
- Because there is an explanation in the video

- It looks interesting
- I want to be a chef
- To inspire life
- It looks interesting
- It looks nice and interesting
- Because it's fun to learn
- It looks interesting
- I want to try new things
- Because I want to be a restaurant owner
- It looks great
- For learning to make coffee
- Because I really want to watch that video
- I want to be a restaurant owner
- Because the video looks fun
- Because I want to follow the video
- Because I want to see
- Because I want to see
- Because I like playing games
- Because being a manager is very easy
- Because it's so good
- Because the video is great
- Because it's interesting

- Because it's interesting
- I want to learn to be an animator
- I want to know
- In order to be able to make videos
- So I can be creative
- Because I am interested
- Because it's about making videos
- Because it's interesting
- I want to know how to make coffee
- Because it's interesting
- Because the video is interesting
- I want to be an animator
- It is a very nice experience
- Because it inspires
- Because the video is really good
- Because I like it
- I want to know what's in the video
- To get inspired in cooking
- It looks interesting
- It looks very nice
- It looks interesting
- I want to see the video

- Because it's good
- It looks great
- It looks great
- Because it looks like fun
- Because the video is great
- I want to be a restaurant owner because I love to cook
- Because the video is very interesting
- It looks interesting
- Because it's interesting
- Because it's interesting
- I want to see the grilling process
- It is very interesting
- To be able to make animations
- Because it's interesting
- It is an interesting video

# What are the new or interesting things that you found out from the activity today?

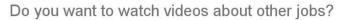
- Watching videos
- I learned how to process coffee
- Watching videos
- Watching videos
- Watching videos

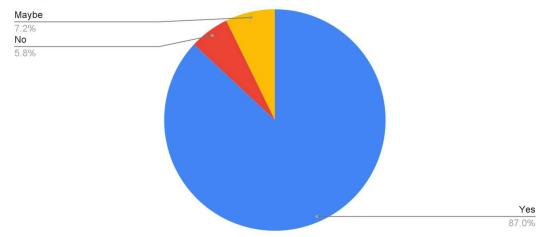
• I watched videos using VR and can be moved

- Watching video
- Watching video
- I was excited and had a lot of fun
- I learned how to cook delicious food
- Watching video
- The video is very good and interesting
- Watching videos is very interesting and good
- Thinking of ideas and questions
- Playing games, drawing, reading
- Learn how to make coffee
- Learn how to grill meat
- I was able to learn new knowledge
- I studied the process of making coffee
- I learn how to pick coffee beans and make coffee
- I learned about cooking
- Watching video
- People making and picking coffee
- Watching videos
- Watching videos
- Watching video
- I saw a BTS movie

- I saw flowers
- When someone is interviewing
- There are various objects in the video
- I must study diligently
- How to compose videos
- How to create videos
- I saw the uncle cooking
- Watching people make videos and take photos
- I got a new mission
- Coffee can be sweet, bitter, and sour
- I got a new experience
- People can make videos every day
- I learn how to create a storyboard for the animation and its creation
- Watching the chef was fun
- I learn how to draw
- Watching was fun
- I know new things
- See what's new by watching videos
- I gain knowledge and now understand
- I rode a car
- Saw how the professor teach
- I can draw better

- I can draw better
- Learn to draw
- Watch videos at close range
- Playing computer
- I like it
- I learn about grilling
- I saw the leather samples
- I learn how to make videos
- Get to know about the creative director's work
- $\bullet\,$  How to manage coffee
- Play and tell stories
- How to make animation
- Tell a story
- Play and tell stories





### Please tell us the reason!

- I want to find new things
- To not get bored
- I want to find new things
- I want to find new things
- I want to see other work
- To have more fun
- It's enough
- I want just one profession
- I like it
- Interesting and good
- Interesting and good
- It's so exciting

- We must do what we must do
- I want to see another job
- Want to watch the video again
- I want to be a coffee farmer
- Because it's good
- Very doubtful
- Want to know
- Want to learn about other themes
- To not get bored
- I don't want another job
- Want to learn to make those videos
- $\bullet$  Want to get more knowledge
- So that others can understand
- Want to get knowledge
- I want to learn to make videos
- I want to learn something else
- Want 2 professions
- Have fun together
- Interesting video
- Of course
- Very nice
- I want to watch another video

- To not get bored
- Would like to see other processes

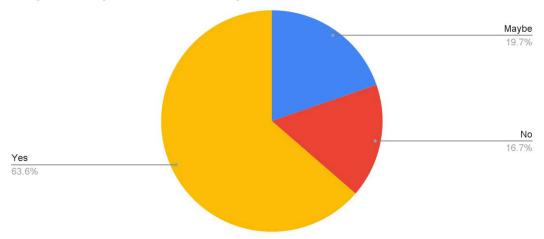
#### If "Yes", what kind of work videos would you like to watch?

- Video designer
- Doctor
- Restaurant owner
- Video designer
- Video designer
- Soldier
- Cook
- Profession
- Animator
- Animator
- Chef
- Farmers and ranchers
- Farmers and ranchers
- Creative manager
- Playing games
- Become an animator
- Army
- Coffee Quality Controllers

- Restaurant owner
- YouTubers
- How to make coffee
- Creative director
- Creative director
- Games illustrator
- Become a creative manager
- Housework/keeping
- Creative manager
- Creative manager
- Professor
- Games illustrator
- Animator
- Games illustrator
- Games illustrator
- Cooking videos
- Coffee roasters
- Restaurant owner
- How to process coffee
- Restaurant owner
- Restaurant owner
- Manager

- $\bullet$  Football
- Football
- Policewoman
- Coffee Roaster
- $\bullet$  Cook
- Home
- School work
- Create games
- Creative manager
- $\bullet$  Biologist
- Restaurant owner
- Create videos
- All
- Create videos
- Fashion designer
- Creative manager
- Professor
- Games illustrator
- Professor



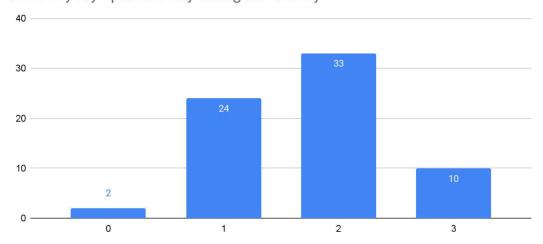


# Please tell us the reason!

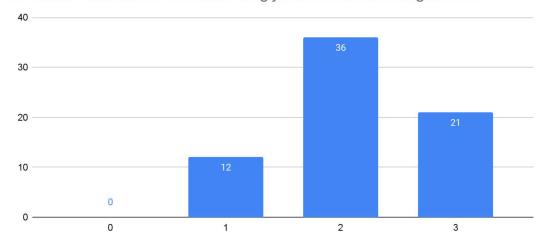
- Not sure
- I'll try my best
- Not sure
- Not sure
- Not always possible
- I like it
- The videos are meaningful
- Because I watched the video
- Want to be a production manager
- Because it is fun
- Because I want to be a teacher
- You can if you study hard

- Because I want to be a manager
- Because I want to be a manager
- Because I want to experience more
- Because I watched the video
- I will be able to cook like the uncle in the video
- Because I want to learn to make videos
- Not sure
- Maybe not, maybe yes
- Want to be like the brothers in the video
- I want to be like her brother
- Very difficult
- Because I can understand
- The videos are very interesting and exciting
- Because it's interesting
- Because I want to understand more
- Want to taste the cooking

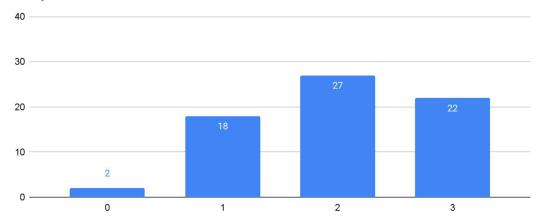
I can say my opinion freely during this activity



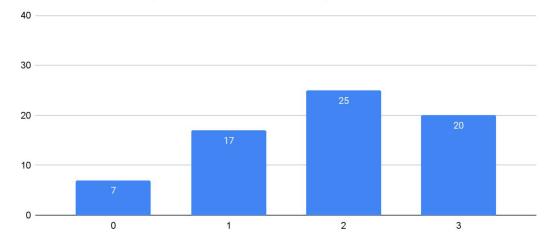
I feel like I can find a lot of interesting job information through IN360 $^{\circ}$ 



I enjoy communicating with the person in the video through this activity today



I would like to tell my friends about this activity



#### Home Exploration Survey

# What are the new or interesting things that you found out from working on the Mission Card?

- Interesting and exciting
- I know more about the growth and development of this plant
- Got a new experience
- Try different flavors of tea
- I can cook with pleasure
- I enjoyed watching her videos and her paper-folding lessons
- I gain experience and enthusiasm to pursue my goals
- Knowing new things that I have never seen
- I can dig up information about my village
- Looking for information from the internet and interviewing the village head
- Gain experience to be more enthusiastic about going to school
- Be independent and carry out tasks in an orderly manner
- Make comics
- Easy but hard
- I can draw
- Can learn to cook with mom
- Nothing
- Can fight to achieve goals
- I found something interesting in this mission card

- Able to watch videos
- Sprout growth
- Can learn how to be a director
- I can understand the goal
- Seeing BTS working on Mission Cards
- Learn new things
- Can fill spare time
- I become happier
- Define ideas
- Can understand how to cook good eel
- Prepare the ingredients and wait for the growth period
- Have a funny experience
- Adding experience
- Can help mom cook and prepare food
- I had fun
- Carry out a task
- Find important information
- I can make caricatures
- Watch videos/explain careers and goals
- Thanks to both parents
- There is a sample of leather

# Does working on the Mission Card help you to understand the skills necessary for the job? Please explain!

- Possible
- Yes, regarding the process from still a seed to a sprout, it turns out that it requires a step-by-step process
- Yes, by working on this problem and reading more about this problem, I understand now
- Yes
- Very helpful
- Yes it helps, but it's also very confusing
- Yes
- Yes, it makes it easier for me to carry out my daily activities
- Very, very helpful because I got information about my village
- Yes, you have to be brave to ask questions and be able to collect data correctly
- Yes, to become a chef I have to study harder and not be lazy
- Yes
- Yes, it is very helpful and I was given a lot of knowledge
- Yes, I understand
- Yes I understand
- Yes, it can
- It helps
- Can defeat evil and bad things

- Yes I understand this mission card
- It helps
- Yes, because I can know the growth of sprouts
- Yes
- Yes
- Yes, this mission card helps me understand the skills needed
- Yes
- Yes, it can help understand the skills needed
- Yes I really understand
- Yes, I can draw my idea
- Mission card jobs don't match my interests or hobbies
- Not really, because I have done it before
- Yes because what we do has become a daily habit
- Yes
- Yes, because it's to help us one day be able to cook
- Yes
- I can draw
- Yes, because I know more about mom
- Yes
- Yes, it is quite helpful in understanding our careers and goals
- Yes
- Yes I really understand the craftsmanship

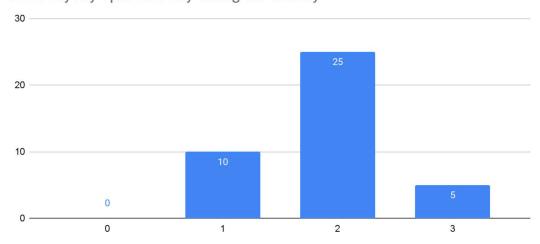
### What do you think about "career" and "aspiration"?

- Career is a skill, aspirations are desires
- A career is a visible talent or effort, it's just a matter of how to develop it.

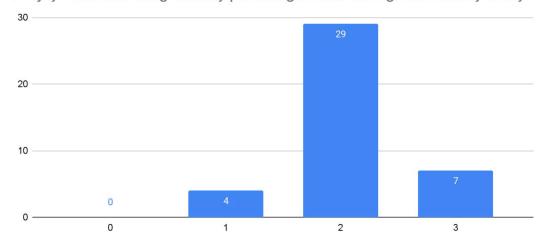
  Meanwhile, our goals are trying to achieve them but not necessarily achieved
- Study well and work hard
- Those of us who have career goals usually try harder to develop our potential so that we can achieve our goals
- It is a number of jobs that are carried out by achievement and training to reach professionalism
- What must be done and achieved
- A person's talents and interests must be achieved to get the job they want
- Aspirations must be realized for the spirit of life
- Aspirations are desired jobs
- Career and goals we must achieve by studying seriously
- Aspiration is a desire, a career is a job
- I want to be a firefighter
- Important for the future
- Career is a stage to achieve a desire, aspirations are desires to be achieved
- A career in my opinion is a position in a job. Dreams are everyone's dreams and everyone's dreams are different
- Aspirations are desires that are always thought of, and career is a condition that shows reality
- Career is a person's development and aspirations are a perfect desire to achieve

- aspirations are our career for the future
- Career is a job, aspirations are our dreams
- Talents and interests of children to be achieved
- Work that people do throughout the life
- Career is development and progress in life, aspirations are desired things for the future
- To achieve career and goals
- Aspirations are something we must pursue
- I'll try my best
- A career is a job that is included in the aspirations, while aspirations are something that is desired in the future
- Career: progress in a job, Aspiration: desire
- Makes us passionate about learning for the goals we achieve
- Desired job
- We must achieve our goals and career by studying diligently
- Very nice
- Important for the future
- The job is like a pilot, the dream is to become a pilot
- A career in my opinion is a position in a job. Dreams are everyone's dreams and everyone's dreams are different
- Aspirations are our career for the future
- Profession
- Career: progress in progress, Aspirations: desired things for the future

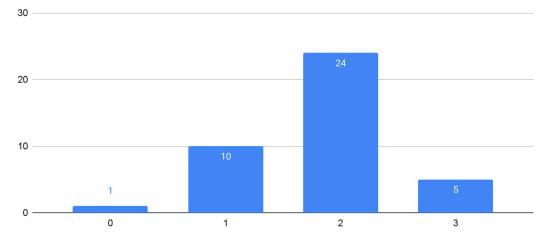
I can say my opinion freely during this activity



I enjoy communicating with my parents/guardian through this activity today







# D.2 Parent's Survey

#### Practice Implementation Survey

Tell us what you like about this activity

- I like it when we work together with children to complete a mission
- This activity can increase children's knowledge
- When drawing, it can add experience and be creative
- Children can make tea with various flavors
- Can make children know things that were not understood before, teach children to be independent
- I really like this IN360° mission school because my child can avoid Tik-Tok/games a little on the cellphone
- Teaching children about the purpose of life
- Give freedom to children to explore talents and interests in children. Make it easy for children to understand the skills they have.

• This activity is very useful as a motivation for children's learning. With this activity children are more active in thinking so that inspiration and creativity emerge.

- Children are more imaginative and learn to think logically
- With this activity, children will be more creative and disciplined
- Happy to have a new experience
- Like, happy, nervous
- Children want to learn, not just play
- Provide a new atmosphere for children to do things together and help each other
- It is fun and feels proud when accompanying children to make torches. Starting from the process of looking for bamboo until the torch can be lit
- Happy
- When he planted the beans and watered the beans
- Become understand something/mission in daily life
- Learn to be creative
- This activity is very useful because children can know the process of sprout growth
- Fun, children can understand new things
- A little confused because I don't understand
- The support of parents or guardians of students is very important for the continuity of children's education
- When cooking
- Children can play with colors by combining colors

- Children can divide their time into positive activities
- I am happy with this activity, my child has new experiences and broader insights into everyday life
- This activity is very interesting and fun, it can fill children's holidays so they don't get bored
- Making children more creative and trying
- When cooking
- Teach children to think about the use of time
- For children's motivation
- Learn more
- They can read and draw
- Provides a new experience to be able to learn more about many things, especially knowing how to deepen one's character
- It's fun to accompany your child to compose a list of questions for an interview and follow the etiquette of interviewing someone so that they get the information they want
- Increase knowledge and skills for children
- Very happy because our child can learn how to grow and develop green beans

#### Tell us the challenges that you faced when doing this activity

- Parents can also find out new things that have never been learned at school so they can learn together
- It's a common thing that happens, children often get annoyed when they are told (to do something)
- Difficulty in drawing and composing stories

• The challenge when brewing hot water, children must be very careful

- When accompanying children, it takes extra patience so that children understand what they are doing
- It is very difficult for children to be told to study because this month is a long holiday and they are still told to go to school and study
- Because many questions are asked by children, it forces us to think about giving logical and reasonable answers
- Child's method of completing mission cards
- Must read more and search for data information, either through the internet or other data sources.
- There are many questions about what and how. Example: "If I want to be a chef, what should I do?" etc
- Sometimes when it's time, the child has to be reminded of the schedule he made
- Feeling trouble
- Good and hard
- Confused
- Doing new activities requires adaptation that requires patience and understanding as well as a longer time
- The challenge when starting the process of making torches, when children find it difficult to sort out the bamboo according to the size of the torch among the bamboo groves
- Think a lot to support children
- Happy and cheerful
- Finding vocabulary in every challenge

- So far, no challenges
- Not knowing good seeds so not all sprouts grow
- Confusing
- The child doesn't understand, hopefully, it will get better
- Difficulty doing it
- Thank you, my child is very happy
- Choose 4 colors from many colors
- Children sometimes very difficult to carry out these activities, especially time. Parents must be there and always remind
- Accompanying children's learning activities are very fun, it can develop children's potential
- Prepare materials for children and help children to complete them
- Unaccustomed and getting new experience
- Learning discipline takes patience
- The challenge is that the child lacks time to discipline
- Tired
- It's easy, the child wants to obey
- When my child and I don't understand some things and have to solve them
- Challenges in completing mission cards "from hobby to work" when children start compiling a list of questions covering 5W+1H and start drawing caricatures
- At the moment there are no challenges
- It's fun, but annoying because he likes to just know the plants are growing but won't water, always being told.

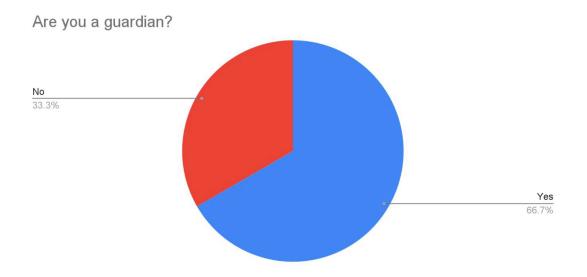
#### Give us your feedback to improve the activity

• Maybe not just make a mission card activity to fill the school holidays. It could also be with ancient games that are already rare because they have been eroded by technological advances/gadget games

- More other activities that increase children's knowledge and benefit children
- The language can be easily understood by the parents of the participants
- Often accompany children and do activities that children like
- Any lessons that are of good quality for children and make children more enthusiastic and active in learning, parents must be happy and support it
- Activity time is added so that children can really understand what they want and what to do
- This mission card is good enough. Maybe it can be included, for example, if a child can complete a mission, he will be given a reward from his peers/parents, even if it's simple
- It's a good job
- Study hard
- Don't know
- Mission cards can be linked to social activities so that children grow disciplined and full of empathy. Then they are motivated by showing videos of successful people inspiring their dreams
- In the mission card form, it may be possible to add a list of types of activities or a detailed table of each process/step of a child's activity so that the child can remember and apply it again in the future.
- Learn a lot and study earnestly
- Suggestions for making more challenging challenges/missions

- Yes, keep learning and try other things
- Children should be informed in advance about how to choose good seeds so that when planting everything can grow
- Children's learning methods to be made easier
- Writing can be understood by parents
- The production just made you happy and feel happy
- Explain the theme more clearly to the child
- If it is done continuously, maybe the child will have good activities in dividing the time
- Hopefully in the future, this activity will be better and continue
- Give assignments according to the child's ability
- Longer
- Maybe a language that is simpler and easier for children to understand
- Continue this activity if it makes children more creative
- That is all and thank you

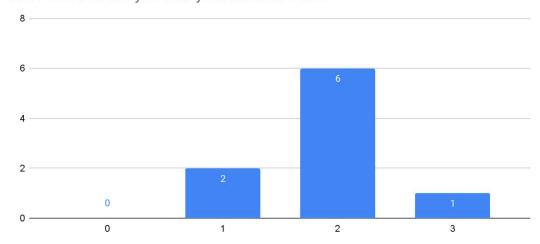
## Local Participation Workshop Survey



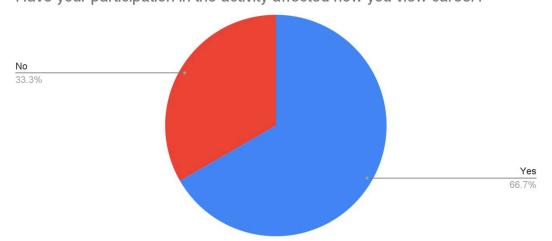
### Please explain the reason you chose the answer!

- Satisfied because to make children more creative
- I could share insights and experiences
- Because it adds experience/insight
- Because the mission we created perfectly according to his instructions
- Satisfied because it helps to increase knowledge
- Because it adds experience
- The lack of knowledge about the director's work is not optimal
- Knowing that children's aspirations need to be supported by parents from an early age
- Because I can make mission cards and know a little about being a director

How satisfied are you with your Mission Card?



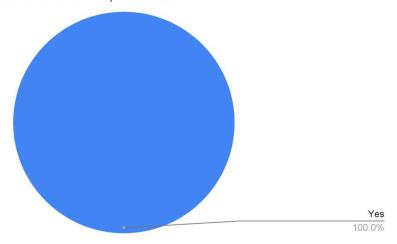
Have your participation in the activity affected how you view career?



### If you choose "yes", please explain how it changes.

- More open-minded about types of work
- Gives freedom to think creatively
- More open to creative ideas
- Lots of work that is not known to ordinary people, to know
- That all careers need insight and support from various parties
- It turned out that there were many things about my career that I didn't know, being a director for example

Is it essential for children to have aspirations?



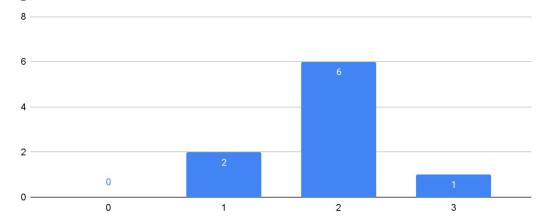
#### Please explain the reason you chose the answer!

- So that children have the motivation and a strong desire for the future
- Because every child must have dreams and a future
- Because it supports the future of our children

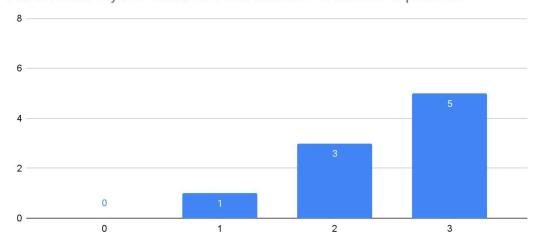
• To motivate children to be able to realize the aspirations according to their wishes

- So that children are also excited to learn
- Because aspirations are important to build his future
- So that children have clear goals in life and can be applied to life
- Motivating children's learning and children's daily activities toward their goals
- Because aspirations are also a guide to life later when the child grows up

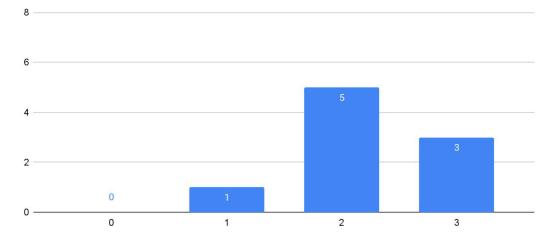
I am willing to put my time and effort into making a contribution with IN360° again in the future



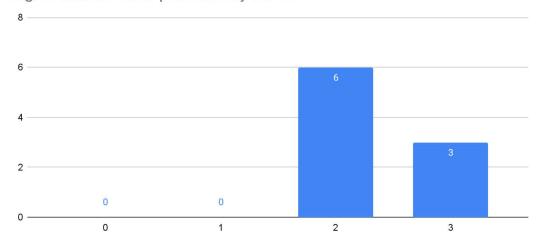
I understand my role and how I can influence children's aspirations



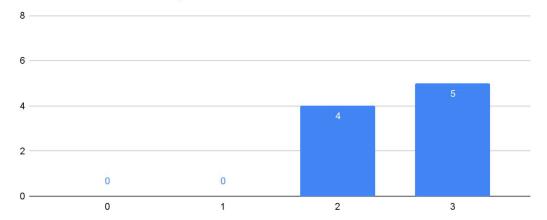
I feel like I make a contribution to children's career aspirations with my work



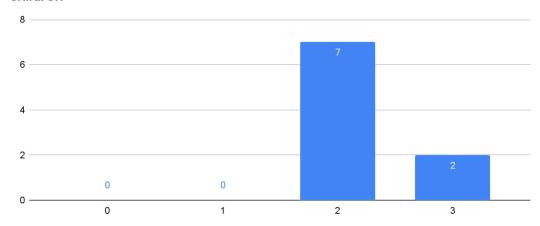
I agree with the value promoted by IN360°



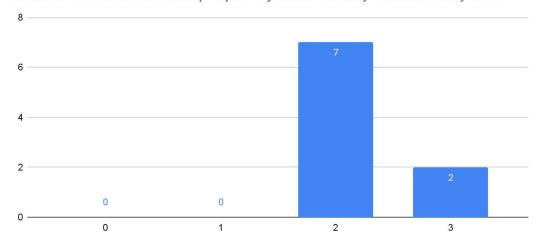
I think the programs provided by IN360 $^{\circ}$  can fulfill the needs of Children related to their career exploration



I enjoy being a part of IN360° in supporting the career development of children



I want to recommend other people to join the activity conducted by IN360°

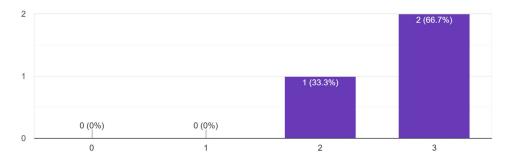


#### Please explain the reason you chose the answer!

- So that other people also have an open mind
- Invite people to view videos and join activities
- To motivate children not to give up seeking knowledge
- IN360° activities give children the freedom to work and think creatively and change the way they seek information
- So that other children can also more precisely choose the aspirations that they like
- In order to motivate children to move forward
- So that children know more jobs
- Invite others to view this video
- Yes, because IN360° can motivate children to explore their dreams

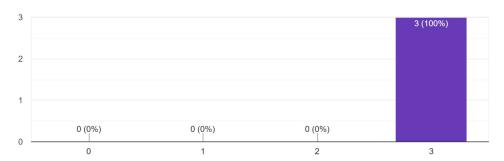
# D.3 Role Model's Survey

1. I am willing to put my time and effort into making a contribution with IN360° again in the future | Saya bersedia meluangkan waktu dan tenaga saya ...tribusi bersama IN360° kembali di kemudian hari <sup>3</sup> responses

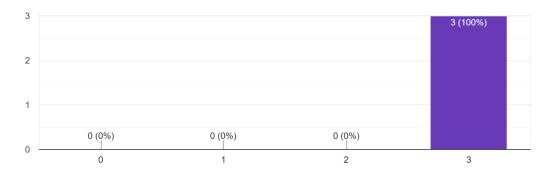


2. I understand my role and how I can influence children's aspirations | Saya memahami peran saya dan bagaimana saya dapat mempengaruhi aspirasi anak-anak

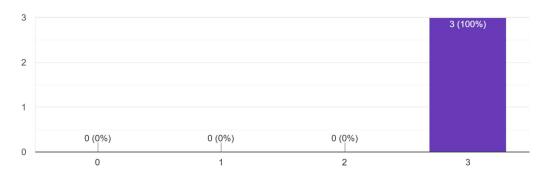
3 responses



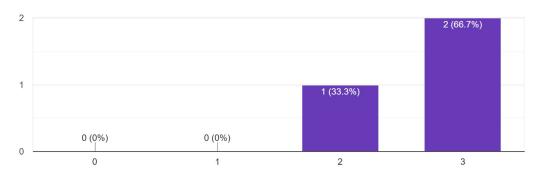
3. I feel like I make a contribution to children's career aspirations with my work | Saya merasa memberikan kontribusi pada aspirasi karir anak-anak dengan karya saya <sup>3</sup> responses



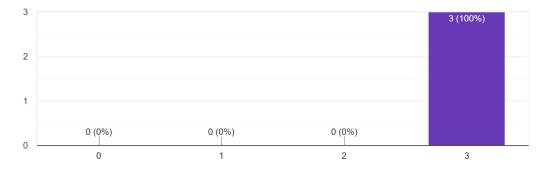
4. I agree with the value promoted by IN360° | Saya setuju dengan nilai yang dijunjung oleh IN360°  $_{\rm 3\,responses}$ 



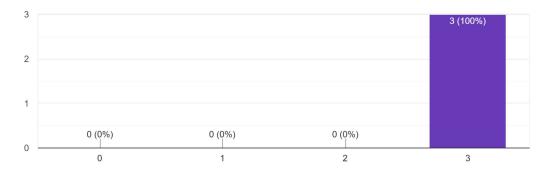
5. I think the programs provided by IN360° can fulfill the needs of Children related to their career exploration | Saya rasa program IN360° dapat memenuhi kebutuhan eksplorasi karir anak-anak <sup>3</sup> responses



6. I enjoy being a part of IN360° in supporting the career development of children | Saya senang menjadi bagian dari IN360° dalam mendukung perkembangan karir anak-anak <sup>3</sup> responses



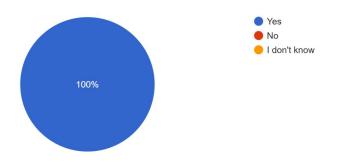
7. I want to recommend other people to join the activity conducted by IN360° | Saya ingin merekomendasikan kegiatan IN360° kepada orang lain <sup>3</sup> responses



#### Please explain the reason you chose the answer!

- In my opinion, this program is very unique, especially since the target is children of a developing age who can add and broaden their horizons about what my colleagues and I are doing at Sembilan Matahari. I hope this can be an inspiration for the younger generation and anyone who watches the IN360° video.
- I would like to recommend Dita Florensia, a chemical engineer who is trying to find new energy from carbon emissions.
- The more the merrier, the more professionals who share, the more friends who will be inspired. The method used by IN360° can facilitate the delivery of these inspirations.

1. Have your participation in the activity affected how you view career? | Apakah keikutsertaan Anda dalam kegiatan IN360° memengaruhi cara pandang Anda terhadap karier? <sup>3</sup> responses

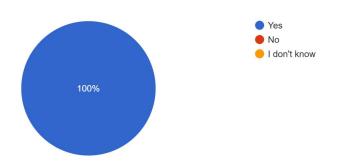


### If you choose "yes", please explain how it changes.

- In my opinion, the perspective on success in a career doesn't have to be stratified by a position that I call "common", for example, a doctor, engineer, police, or military. etc. Because actually, the best career is the one we can enjoy the process of which we can enjoy whatever the problem is. Because a career can be said to be successful if the reward we dream of can be achieved.
- Introducing new jobs in the industry, especially design.
- I have become increasingly aware that all areas of expertise are important and have their respective places. Imagine if everything is increasingly connected with technological and media developments, there will definitely be new insights.

3. Is it essential for children to have aspirations? | Apakah penting bagi anak untuk memiliki cita-cita?

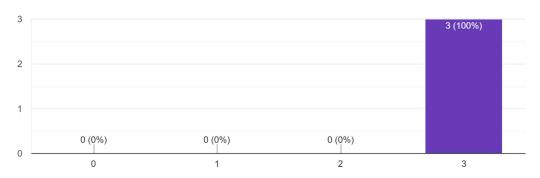




#### Please explain the reason you chose the answer!

- Aspirations or dreams are very important in my opinion because I also started with the dream of being able to do it as a DKV graduate, who knows what it will become even though I used to dream of being a filmmaker. I know Allah gave me something unique, namely to become a Creative Manager at a company in Indonesia whose work has gone international with the medium of Video Mapping. It is so unimaginable. That's why whatever we dream of, live it, enjoy it, and be grateful for the blessings that GOD has given us.
- Aspiration is important for the spirit of living life, and there is a reason to keep fighting.
- Dreams can take us to places we never expected. Connect with new people and new things.

1. How satisfied are you with your video? | Seberapa puaskah dengan hasil video Anda? <sup>3</sup> responses



# Please explain the reason you chose the answer!

- In my opinion, education in this style is very unique and interesting, especially since it has entered an era of very rapid technological development, so you have to make educational innovations that are interesting for today's children so that their imagination can be implemented through this program.
- Cool new 360° experience
- At the time of making the video, I wanted to show the fun side of my work with the aim of inspiring other people who might one day try/dive into the same field, without the need to be patronizing. The things that I wanted to convey and show in the video were successfully accommodated in the video.

# Feel free to write any feedback or impressions you had about your experience with $IN360^{\circ}$ .

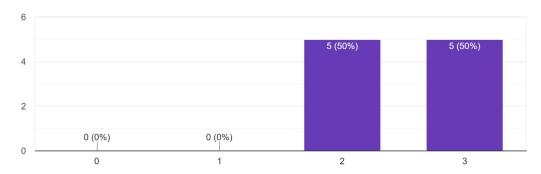
• In my opinion, the best advice for this program is that it can be distributed to various schools, especially in areas that need inspiration like this. If access is made easier for schools in Indonesia and this program can be evenly dis-

tributed, God willing, education like this can be interesting for our younger generation in Indonesia.

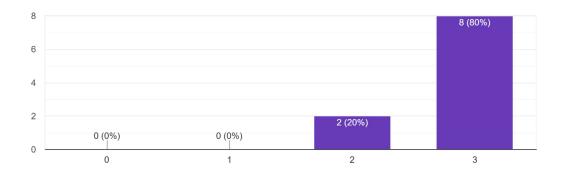
- Add more professions, cheers!
- Continue!!! Maybe you can invite influencers to work together so that more people want to share and have a bigger audience.

# D.4 Co-creator's Survey

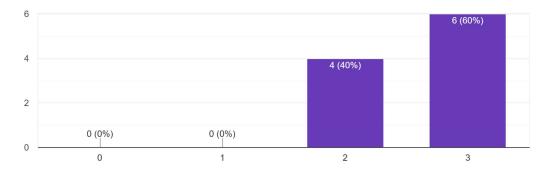
1. I am willing to put my time and effort into making a contribution with IN360° again in the future | Saya bersedia meluangkan waktu dan tenaga saya ...tribusi bersama IN360° kembali di kemudian hari 10 responses



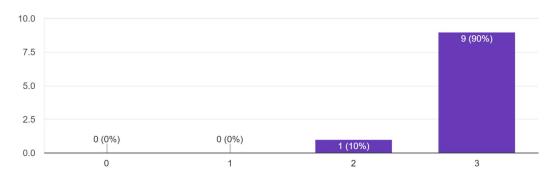
2. I understand my role and how I can influence children's aspirations | Saya memahami peran saya dan bagaimana saya dapat mempengaruhi aspirasi anak-anak 10 responses



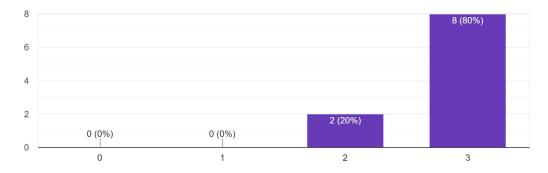
3. I feel like I make a contribution to children's career aspirations with my work | Saya merasa memberikan kontribusi pada aspirasi karir anak-anak dengan karya saya 10 responses



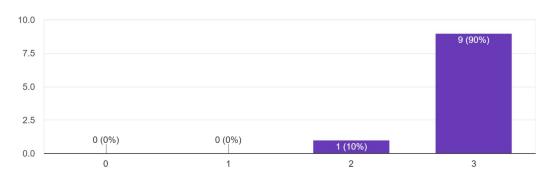
4. I agree with the value promoted by IN360° | Saya setuju dengan nilai yang dijunjung oleh IN360° 10 responses



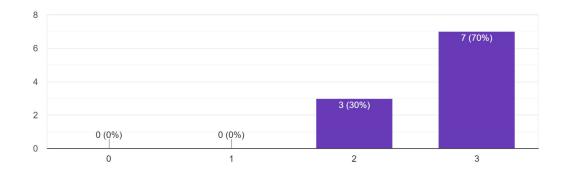
5. I think the programs provided by IN360° can fulfill the needs of Children related to their career exploration | Saya rasa program IN360° dapat memenuhi kebutuhan eksplorasi karir anak-anak <sup>10</sup> responses



6. I enjoy being a part of IN360° in supporting the career development of children | Saya senang menjadi bagian dari IN360° dalam mendukung perkembangan karir anak-anak 10 responses



7. I want to recommend other people to join the activity conducted by IN360° | Saya ingin merekomendasikan kegiatan IN360° kepada orang lain  $_{\rm 10\,responses}$ 

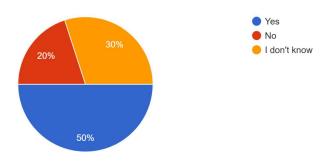


#### Please explain the reason you chose the answer!

• So that other people who haven't had the opportunity to gain knowledge about IN360° can also share their aspirations for more career development

- Due to development disparities that occur between regions in Indonesia, making the IN360° project an alternative solution to introduce professions that local children may not know about.
- The IN360° workshop provides many benefits, lots to learn, interesting, and also fun
- I think that activities in the form of contributions to others who are in need and have good morals are good for everyone. It's a shame that many of my friends have a hard time keeping track of distances.
- Because the activities are fun, unique, and can be a new experience that is carried out with a noble purpose and can also meet cool role models
- Because activities are fun and useful
- Apart from this program being able to benefit children in exploring their careers and being able to improve the quality of human resources in Indonesia, participating in this activity can also benefit us, for example interviewing sources and participating in the 360° video filming and content creating process.
- Because more and more people contribute, there will also be more inspiration
  that can be spread and developed to many children who can then open the
  hearts and minds of wide circles of people.
- Because it is definitely something new worth trying (using 360° camera) and it also taught me something that I never thought of before (part of giving new experiences for kids) also giving those kids a new chance and I'm hoping that this activity can really create an impact for both sides
- I think when a child is able to explore more about the jobs available in the world by using new media such as IN360° it will help them a lot to be introduced to the job and keep them intrigued to watch the video.

1. Have your participation in the activity affected how you view career? | Apakah keikutsertaan Anda dalam kegiatan IN360° memengaruhi cara pandang Anda terhadap karier? 10 responses

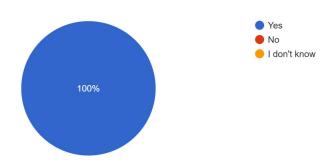


#### If you choose "yes", please explain how it changes.

- My perspective on career has become more open and broader, I have come to know more that there are lots of jobs out there that many people don't know about.
- It turns out that there are differences in knowledge about careers for children in cities and in villages.
- I just realized the lack of knowledge about work for children who are not as fortunate as me, they deserve to have opportunities like me and my friends
- At first, I thought a job like a creative director was a very serious job in an office and had to deal with a lot of data, but it turns out that the creative director's job looks more fun and the relationship he has with his team looks fun.
- I realize that there are differences in how children in urban areas see job opportunities with children in rural areas

3. Is it essential for children to have aspirations? | Apakah penting bagi anak untuk memiliki cita-cita?

10 responses



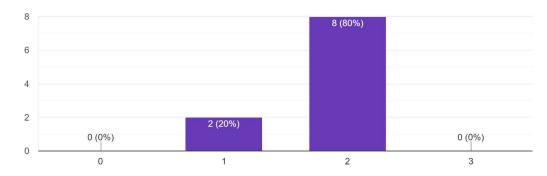
#### Please explain the reason you chose the answer!

- Because by having aspirations, the child's future can be more focused on which domain he wants to go to and focus on that choice
- Because with aspirations a child/person can live his life to the fullest
- By having goals, they will know where their life is going.
- without aspirations, there will be no motivation, and without motivation, putting aside the necessities of life, it will be very boring
- It is important because so that children can know what they have to prepare from now on to pursue their goals
- This is necessary because, with the existence of goals, children can have the motivation that comes from within which can make them want to strive to achieve them
- Having goals can be a driving force in everyday life. By having aspirations, someone will try to explore or explore various things to get that goal.
- it is important for me that children have dreams and goals that they want to achieve because from this they can learn how to be responsible and try hard

with all their efforts to achieve what they want. "a life without dreams or goals is a boring life" is what I believe in because by living without dreams, people and children will miss out on the many fun things they can do or try out of the many opportunities that arise in life.

- From my perspective, I believe having an aspiration, is the reason to live as it gives you a direction to live your life
- This is important because when they have aspirations they can continue living their lives to the fullest and help them live day by day

1. How satisfied are you with your video? | Seberapa puaskah dengan hasil video yang Anda buat? 10 responses



#### Please explain the reason you chose the answer!

- I'm not satisfied because I think there's still a lot to improve so that the video can be more attractive to children.
- I am satisfied even though there are still many shortcomings in the video results because the processing time is fast so the results are still unsatisfactory
- Lots of cuts but overall I like it

• A little dissatisfied because I feel there are some parts where the sound quality is lacking

- I am quite satisfied because some of the goals that I hope for are in the video such as messages that can be conveyed clearly and pleasantly in the videos that have been made. But I feel that it is still lacking to make the audience really understand the career in the video
- Most of the video results are in accordance with what was planned, but there are a number of things from the video that can be improved such as lighting settings in several scenes.
- When finishing the video in the recording section we went through a lot of unexpected things which brought quite a bit of difficulty and had quite a bit of time in the editing section, so the results of the video we made didn't quite fulfill what we imagined and planned. However, I hope that the messages and plots that we intend can be conveyed from the videos that have been produced.
- The storyboard itself, I think is a little bit boring, especially for kids. They mostly want something that is colorful and has a lot of action in it, but mine is kinda boring.
- I think we could still improve more if we had more time to edit

3. How much do you know about | Pengetahuan dalam

