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Community Car Care Workshop

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Abstract

This project aims to fill a notable deficiency in fundamental automobile maintenance knowledge within the local community, a deficiency that has resulted in increased repair expenses and potential hazards to safety. The proposed approach entails the creation and execution of an interactive workshop that specifically targets fundamental car maintenance activities such as oil changes, tire rotations, and brake inspections. This workshop utilizes a service-learning approach, actively involving the community and partnering with local auto repair shops and other relevant parties. The program seeks to equip community members with essential skills in basic car maintenance through interactive learning and practical demonstrations. This initiative intends to foster safer driving habits and enable individuals to make financial savings. The workshop's efficacy will be assessed by a comprehensive methodology, encompassing pre- and post-workshop assessments, comments from attendees, and indicators measuring community involvement.

Introduction

The inspiration for this project originated from an apparent and pressing problem identified within my immediate community: a pervasive deficiency in fundamental automobile maintenance knowledge, frequently leading to avoidable expenses and jeopardizing safety. This difficulty was further emphasized during my conversations with local automotive repair experts, who recounted their experiences of numerous avoidable repairs. This situation highlighted the necessity for a pragmatic and efficient resolution. As a reaction, I devised an interactive session with the aim of closing this knowledge disparity. The initiative commenced with thorough research and close consultation with automobile specialists, resulting in the creation of a

curriculum that prioritized fundamental maintenance duties. The workshop was meticulously crafted to provide a realistic and immersive experience, utilizing collaborations with nearby auto businesses to boost its real-world applicability and credibility. The initiative was finalized with a feedback and evaluation phase, which included administering quizzes before and after the workshop to measure the project's impact. This effort served as not just an educational endeavor, but also as a means to foster a culture of proactive vehicle maintenance within the community, so enhancing road safety and potentially reducing expenses.

Elements Coming Together

The inception of the automobile repair workshop initiative was based on a straightforward yet crucial observation: the widespread absence of fundamental automotive knowledge among community members. Conversations with local citizens and vehicle repair experts were prompted by this discovery, which uncovered a notable demand for easily available automobile maintenance instruction. During the planning stage, much consideration was given to determining the crucial and practical maintenance skills that would be most advantageous to the community. This stage encompassed comprehensive research, which entailed seeking advice from experts in the automotive business and conducting a meticulous examination of preexisting educational resources. The objective was to guarantee that the workshop would provide valuable information and be immediately relevant to the everyday requirements of car owners. After identifying the main subjects, the subsequent stage involved creating a thorough and captivating curriculum that would appeal to individuals from diverse backgrounds. The program was specifically developed to prioritize experiential learning, guaranteeing that participants would not only gain academic information but also develop practical skills. Concurrently, efforts were

made to allocate resources for the project, encompassing tasks such as obtaining a suitable location, procuring essential tools and supplies, and developing relationships with nearby vehicle repair businesses and technicians. These alliances played a crucial role in contributing their specialized knowledge and resources to the project. The execution phase of the project signified the tangible implementation of the workshop. The event was structured to establish an engaging and nurturing learning atmosphere, wherein participants were motivated to actively interact with the contents, tools, and tasks. Additionally, endeavors were undertaken to cultivate a feeling of camaraderie among participants, with the objective of establishing a connected group of knowledgeable vehicle owners who could support each other. In order to optimize the reach and influence, a range of community channels were employed for promotion, such as local community centers and referrals through word-of-mouth. The final component of the project was the evaluation phase. In order to evaluate the efficacy of the workshop, a range of measures were utilized. Participants were administered pre- and post-workshop quizzes to assess the extent of knowledge acquired. In addition, feedback forms were supplied to collect subjective input on the workshop experience. The feedback loop played a crucial role not just in assessing the project's success but also in pinpointing areas for enhancement in future iterations. The ultimate objective was to provide a sustainable framework that could be duplicated or modified to continuously address the requirements of the community.

Innovative Approach

This project uniquely blended varied viewpoints to produce a comprehensive educational experience. By integrating the specialized knowledge of automotive professionals with the real-life experiences of regular car owners, we developed a curriculum that was both technically

rigorous and directly applicable to the participants' daily lives. The project transcended conventional teaching methods by embracing an inclusive and effective educational approach that accommodated diverse learners through a combination of theoretical training and practical application. This technique not only clarified the process of car maintenance but also enabled participants to independently carry out fundamental activities, providing information regarding when to seek assistance from professionals. By doing thus, it promoted the idea that basic vehicle maintenance abilities and expert services may harmoniously coexist. The inclusion of local vehicle repair businesses was a deliberate maneuver, establishing a network inside the community where expert services and community education mutually reinforced one another, dismantling conventional barriers between consumers and service providers. The partnership played a crucial role in improving the participants' belief in their own abilities and fostering a more knowledgeable and accountable attitude towards car maintenance.

Emotional Intelligence

The project's success was largely attributed to a strong foundation in emotional intelligence, namely in the cultivation of self-awareness and empathy towards others. This level of awareness was crucial during the stages of planning and execution, facilitating efficient assignment of tasks, seeking assistance when necessary, and guaranteeing that the project capitalized on the team's capabilities. Equally important was the understanding of the workshop participants' emotional and cognitive needs. The project was customized to be accessible and relatable by recognizing the diverse backgrounds and experiences of the participants. This sensitivity facilitated the establishment of a learning atmosphere that was not intimidating, so fostering a sense of value and understanding among the participants. The project's approach was heavily influenced by the

audience's emotional makeup. The workshop was intentionally created to empower individuals by alleviating the stress and anxiety associated with car maintenance, rather than overwhelming them. This entailed employing effective communication strategies by utilizing simplified language instead of specialized terminology and fostering a nurturing environment that encouraged questions and mistakes as integral components of the educational journey. The project created a friendly and supportive learning atmosphere by understanding and acknowledging the participants' concerns and difficulties with car maintenance. The project's display of emotional intelligence was also apparent in its significant worth to others. The program not only imparted practical skills, but also enhanced the participants' self-assurance and alleviated their car maintenance-related anxiety. The empowerment had a cascading effect, as participants were inclined to pass on their knowledge and experiences to others in their network, thus amplifying the project's influence. In addition, the partnership with local automotive repair experts facilitated the establishment of a connection between specialists and the community, promoting mutual understanding and respect. Not only did this provide benefits to the participants, but it also allowed professionals to obtain valuable insights about the community's needs and attitudes.

Creative Thinking

The project's creative framework sought to provide automobile maintenance education in a unique manner, utilizing a single comprehensive workshop. The workshop effectively combined conventional teaching approaches with interactive and hands-on components, optimizing the restricted timeframe to provide a significant and captivating learning encounter. The program was designed with the dual purpose of not only teaching practical skills, but also changing

participants' attitudes towards car care, making it easier and more approachable. The workshop's distinctive approach was apparent in its interactive educational setting, fostering active engagement and a hands-on approach, significantly enhancing knowledge retention and promoting self-confidence. Participants actively engaged in hands-on activities, enabling them to immediately apply their newly acquired information within a supportive environment. Furthermore, the program placed significant emphasis on the practical implementation of concepts in real-life scenarios. The content was designed to be highly relevant and useful by focusing on scenarios that are commonly experienced in daily life. This approach facilitated the clarification of the technical aspects of car maintenance, guaranteeing that the skills taught were easy to understand and readily practical. Moreover, the workshop featured significant collaboration between community members and expert automotive technicians. This partnership offered a comprehensive educational opportunity, merging local insights with professional knowledge. The involvement of professionals from nearby automotive establishments contributed a unique blend of pragmatic guidance and specialized knowledge, thereby enhancing the educational value of the workshop.

My Innovative Solution

My innovative solution for this capstone project was the successful development and delivery of a comprehensive, interactive workshop on basic car care. This workshop functioned as a successful bridge, reducing the disparity in knowledge within the local community and empowering participants with essential automotive care and maintenance skills. The workshop's true accomplishment lay not only in its implementation but also in the significant influence it exerted on the participants. Participants left with heightened confidence and proficiency with

handling basic vehicle maintenance duties, resulting in safer vehicle practices and potential reductions in repair costs. The workshop additionally provided a valuable platform for community involvement and instruction, cultivating a feeling of empowerment and self-sufficiency. The project's innovative approach to tackling the deficiency in fundamental automobile maintenance knowledge was comprehensive. The learning experience was centered around active participation, representing a notable departure from conventional, less engaging teaching approaches. The method of learning through hands-on experience, as demonstrated in the context of car repair, has proved to be extremely effective. Moreover, the inclusion of skilled automotive technicians and local residents in the workshop offered a unique learning experience. The combination of specialized expertise and a teaching approach centered around the community guaranteed that the information provided was not only precise but also deeply connected with the unique requirements and worries of the community. Furthermore, the workshop placed a strong emphasis on practical, real-life scenarios, ensuring that the material and skills presented could be readily applied to everyday situations. This pragmatic emphasis aided in rendering car maintenance more accessible and less intimidating for the typical car owner. Finally, the project sought to build a sustainable educational framework that could be copied or modified in the future. The workshop established a precedent for future community-based practical learning initiatives by demonstrating the effectiveness of this method, thereby providing a foundation for their development and success.

Results

The evaluation of the car maintenance workshop was conducted using a blend of quantitative and qualitative methodologies. Pre- and post-workshop surveys were administered to evaluate the increase in participants' knowledge and confidence. The surveys included questions pertaining to fundamental car maintenance duties, assessing both their comprehension and confidence in performing these tasks. Participant feedback was also obtained at the conclusion of the workshop to assess the workshop's effectiveness in terms of the relevancy of its material, the quality of its presentation, and the overall level of satisfaction. The workshop's observational assessment yielded valuable insights into the efficacy of the instructional techniques employed and the overall impact of the workshop.

Benefits to Stakeholders:

The project yielded substantial benefits for multiple stakeholders, encompassing workshop participants, local car repair shops, and the wider community, all of whom derived significant rewards from their engagement. Workshop attendees acquired both practical expertise and understanding in fundamental automobile maintenance, as well as a heightened sense of confidence in effectively managing the maintenance of their vehicles. The heightened confidence has the potential to result in measurable cost savings on maintenance and improved safety on the road. The skills obtained in this program encompass more than just automobile maintenance; they aim to cultivate a feeling of competence and self-reliance in every participant. The participation of local auto repair businesses in the workshop was quite advantageous for them. Through their participation, these businesses were able to establish favorable connections with the community, setting the foundation for potential expansion in their client base. In addition, their involvement encouraged the development of a more knowledgeable client base, resulting in

more seamless interactions and transactions. This aspect of the project strengthened the connection between local businesses and the community, promoting a shared appreciation and respect that is advantageous for all parties concerned. Finally, the wider community benefited from the positive effects of the project's emphasis on enhancing road safety by improving the upkeep of vehicles. This initiative had a broader impact, promoting the general welfare and safety of the community, rather than only benefiting individuals. Additionally, it significantly contributed to cultivating a feeling of empowerment and self-sufficiency among individuals within the community. It demonstrated that by acquiring appropriate knowledge and skills, they can successfully assume control over many parts of their everyday existence that were previously delegated to experts. Empowering individuals is a crucial measure in constructing a more robust and resilient community.

Actual Impact on Stakeholders

The impact of the workshop on stakeholders was significant, as evidenced by the before-and-after survey results. The surveys focused on participants' understanding and confidence in basic automobile maintenance tasks. Initially, 20% of participants admitted to having no knowledge of car maintenance, but this figure impressively dropped to 0% post-workshop. The proportion of participants with only basic knowledge also decreased, going from 53% to 40%. More notably, the percentage of those with moderate knowledge soared from 27% to 60%.

In terms of confidence, the transformation was equally remarkable. Before the workshop, 33% of participants reported having no confidence in their car maintenance skills, a number that significantly decreased to 7% afterward. Those with slight confidence decreased from 53% to

33%, while the percentage of participants with moderate confidence jumped from 13% to an impressive 60%.

Additionally, a significant number of individuals reported feeling a heightened sense of authority and control when it comes to the upkeep and repair of their vehicles. The local auto repair shops garnered favorable exposure and comments from the community, so enhancing their reputation and fostering stronger ties with the local residents. Additionally, having more responsible and knowledgeable car owners benefitted the community as a whole since they can lead to safer roads and a more self-reliant culture within the community.

Conclusion

Ultimately, the project's objective was to significantly improve the fundamental understanding and confidence of participants in regards to car maintenance, thereby equipping the community with vital skills in this domain. The anticipated outcome of this empowerment was to promote safer automobile practices and potentially reduce expenses associated with vehicle repairs. Moreover, the workshop was specifically created to cultivate a feeling of community and encourage proactive maintenance of vehicles. The workshop's actual outcomes were simultaneously validating and surprising in various aspects. The pre- and post-workshop questionnaires revealed a substantial increase in participants' comprehension and confidence in fundamental automobile maintenance. This highlighted the efficacy of the workshop's practical and engaging instructional method. Furthermore, the participants displayed a higher degree of involvement and excitement than anticipated, suggesting a significant community interest in hands-on, skill-oriented educational programs. Notably, the workshop also drew in younger age groups, including teenagers and young adults, indicating its ability to appeal to and influence a

wider spectrum of ages within the community. Upon reflection of the project, there exist numerous modifications that could be implemented to augment subsequent iterations. Firstly, providing a sequence of workshops rather than a single session could enable a more thorough exploration of car maintenance subjects and promote gradual improvement of skills. Broadening the target audience and tailoring content to cater to varied demographic requirements could enhance the inclusivity and effectiveness of the initiative. In addition, the creation of additional online materials would provide participants with ongoing support and opportunities for learning. Optimal use of various advertising channels could have a key role in reaching a wider audience and enhancing community awareness regarding the workshops. Finally, conducting a thorough evaluation and streamlining of the use of resources has the potential to enhance efficiency and scalability in future workshops.

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Appendix

[Survey Data](#)

[Lesson Plan](#)

Survey Data

How would you rate your knowledge of car maintenance?	How confident do you feel about performing car maintenance tasks?	Have you ever changed an oil filter?	How often do you check your car's fluids (oil, coolant, etc.)?	Do you know how to check and top up your car's fluids (oil, coolant, etc.)?
Basic knowledge	Slightly confident	No	Never	Yes
Moderate knowledge	Moderately confident	Yes	Sometimes	Yes
Moderate knowledge	Slightly confident	No	Sometimes	Yes
Basic knowledge	Slightly confident	No	Sometimes	Yes
Moderate knowledge	Moderately confident	Yes	Rarely	Yes
Basic knowledge	Slightly confident	No	Rarely	No
Basic knowledge	Slightly confident	Yes	Never	No
No knowledge	Not confident at all	No	Never	No
Basic knowledge	Slightly confident	Yes	Never	Yes
No knowledge	Not confident at all	No	Never	No
Basic knowledge	Not confident at all	No	Rarely	Yes
Moderate knowledge	Slightly confident	Yes	Rarely	No
No knowledge	Not confident at all	Yes	Never	No
Basic knowledge	Not confident at all	No	Rarely	No
Basic knowledge	Slightly confident	No	Rarely	Yes

Community Car Care Workshop Lesson Plan

1. Introduction to Car Maintenance

- **Objective:** To provide an overview of basic car maintenance and its importance.
- **Topics:**
 - Importance of regular vehicle maintenance.
 - Understanding your vehicle: a brief overview of major car components.

2. Basic Engine Maintenance

- **Objective:** To teach fundamental engine maintenance tasks.
- **Topics:**
 - Checking and changing engine oil.
 - Understanding and maintaining the cooling system.
 - Replacing air filters.

3. Tire Maintenance

- **Objective:** To provide knowledge about tire maintenance for safety and efficiency.
- **Topics:**
 - Checking tire pressure and tread depth.
 - Understanding tire rotation and balancing.
 - How to change a tire.

4. Car Battery Care

- **Objective:** To educate about battery maintenance and troubleshooting.
- **Topics:**
 - Checking and cleaning battery terminals.
 - Recognizing signs of battery failure.
 - Jump-starting a car safely.

5. Brake System Basics

- **Objective:** To understand the basics of brake system and its maintenance.
- **Topics:**
 - Recognizing signs of brake problems.
 - Basic brake maintenance tips.

6. Fluids Check and Maintenance

- **Objective:** To learn how to check and maintain various vehicle fluids.
- **Topics:**
 - Identifying and checking different fluids (brake, transmission, coolant, power steering).
 - Tips for fluid maintenance and top-up.

7. Practical Workshop

- **Objective:** Hands-on session for participants to apply learned skills.
- **Activities:**
 - Oil change demonstration and practice.
 - Tire pressure check and rotation demonstration.
 - Battery maintenance and jump-start exercise.

8. Workshop Wrap-up and Q&A

- **Objective:** To conclude the workshop and clarify any doubts.
- **Activities:**
 - Summary of key takeaways.
 - Open Q&A session.
 - Distribution of resource materials and contact information for local auto shops.

9. Feedback and Evaluation

- **Objective:** To gather participant feedback for future improvements.
- **Activities:**
 - Distribution of feedback forms.
 - Discussion of follow-up resources and potential future workshops.