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Qibla Direction Training for the Million People of South Galesong District, Takalar Regency

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Artikel info

Abstract. Kegiatan pengabdian kepada masyarakat ini bertujuan meningkatkan pengetahuan dan keterampilan masyarakat dalam menentukan arah kiblat yang akurat pada tempat ibadah dan pemakaman di Kecamatan Galesong Selatan, Kabupaten Takalar. Pelaksanaan kegiatan dilakukan melalui koordinasi dengan mitra lokal, sosialisasi urgensi ketepatan arah kiblat, pelatihan penggunaan kompas, instrumen Istiwa'aini, aplikasi penunjuk arah kiblat berbasis telepon pintar, praktik lapangan, kalibrasi pada masjid dan makam terpilih, serta evaluasi melalui observasi, diskusi, dan perbandingan hasil pengukuran. Teknik analisis dilakukan secara deskriptif dengan menelaah respons peserta, keterlibatan selama praktik, dan selisih antara arah kiblat yang telah digunakan dengan hasil pengukuran. Hasil kegiatan menunjukkan bahwa pemahaman masyarakat terhadap metode dan teknologi pengukuran arah kiblat masih terbatas, sementara peserta memberikan respons positif terhadap pendampingan langsung. Pengukuran pada sampel masjid dan makam menemukan selisih arah kiblat sebesar lima belas hingga dua puluh enam derajat. Kegiatan ini menyimpulkan bahwa sosialisasi, praktik instrumen, dan kalibrasi lapangan mampu memperkuat kapasitas masyarakat dalam memeriksa dan memperbaiki arah kiblat secara mandiri dan berkelanjutan.
Abstract. This community service activity aimed to improve public knowledge and practical skills in determining accurate Qibla direction for places of worship and cemeteries in South Galesong District, Takalar Regency. The activity was carried out through coordination with local partners, socialization on the urgency of Qibla accuracy, training in the use of compasses,

Istiwa'aini instruments, smartphone-based Qibla applications, field practice, calibration at selected mosques and cemeteries, and evaluation through observation, discussion, and comparison of measurement results. Data were analyzed descriptively by examining participant responses, field participation, and differences between existing Qibla directions and measured results. The activity showed that community knowledge of Qibla measurement methods and supporting technology was still limited, while participants responded positively to direct training and field assistance. Measurements on mosque and cemetery samples found deviations of fifteen to twenty-six degrees from the accurate Qibla direction. The program concluded that integrated socialization, instrument practice, and field calibration can strengthen community capacity to check and correct Qibla direction independently and sustainably.

Keywords:
Qibla direction; Qibla calibration; community service; mosque and cemetery; Islamic astronomy.

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INTRODUCTION

The Qibla direction is an important aspect of Muslim worship, particularly in the performance of prayer, which is a fundamental obligation for every Muslim. The accurate determination of the Qibla direction greatly affects the validity of worship, since in Islam, prayer must be performed facing the Kaaba in Mecca. The Qibla direction is not only required when performing prayer, but also during the burial of a deceased person (Sakirman, 2017). According to Mustafa al-Khin in the Shafi'i school of thought, facing the Qibla for a deceased person is obligatory (Sukiyanto et al., 2020). However, despite technological advancements, many Muslims still face difficulties in determining the Qibla direction accurately, especially in remote areas. The Qibla direction can be determined using trigonometric calculation methods (Fitriyanti, 2021), astronomical data, and the coordinates of a location relative to the Kaaba (Hakim & Rahmawati, 2023). Measurement methods may also involve the Rashdul Qibla phenomenon, the istiwa stick, or technology-based instruments such as Global Positioning System devices, theodolites, Google Earth, and other tools (Zuhdi & Al Muhtadi, 2021). Geographically, Indonesia is located in the southern latitude, while the Kaaba is located in the northern latitude. Therefore, the Qibla direction in Indonesia does not point exactly westward, but slightly inclines toward the northwest (Faiz, 2022).

Facing the Qibla during prayer and burial is also obligatory (Ananda et al., 2023). This is reflected in the saying of the Prophet Muhammad, peace be upon him: “From Umair bin Qatadah al-Laitsi, the Messenger of Allah said: The Kaaba is your Qibla, both in life and after death” (Narrated by Abu Dawud) (Daud & Kamalussafir, 2018). However, in emergency conditions, such as severe illness or while traveling and performing prayer in a vehicle, facing the Qibla is not required (Nurnillawati & Rahmatiah, 2021). It is explained in Surah Al-Baqarah verses 144–150 that prayer and burial should be directed toward the Qibla. Nevertheless, many buildings, including mosques, prayer rooms, and cemeteries, are still not precisely oriented toward the Qibla (Arsil & Aisyah, 2021). Another contributing factor is that during burials, grave diggers often follow the direction of existing graves, although the graves in the village may be irregularly positioned. This occurs due to the limited number of religious figures and the lack of public understanding regarding the determination of the Qibla direction for graves. Most people determine the Qibla direction only by estimation, assuming that the direction of the sunset from east to west indicates the Qibla direction (Indasari et al., 2023).

In addition, human error has also been found during the measurement process (HL, 2020). At present, there is still a lack of attention to the issue of Qibla direction, particularly in cemeteries, even though it is an obligation for every Muslim (Sukiyanto et al., 2020). Among the causes are the lack of public knowledge and awareness regarding the urgency of determining the Qibla direction for cemeteries and mosques. Furthermore, during the burial process, misunderstandings often occur in positioning the deceased so that the body faces the Qibla (Taman et al., 2024). Along with the development of science and technology, methods, techniques, technologies, and calculation theories have become easier to apply in determining the Qibla direction (Hosen & Nurhalisa, 2019). Considering that the majority of Indonesia’s population is Muslim, Islamic astronomy plays an important role in determining the Qibla direction for burial practices (Awaludin & Rahman, 2022). To address problems related to Qibla direction, especially in cemeteries, efforts are needed to mitigate measurement errors through Qibla direction accuracy procedures (Alamsyah et al., 2024). Several studies conducted particularly in South Sulawesi, including in Gowa Regency (Cahyani et al., 2022), Enrekang Regency (Arsil & Aisyah, 2021), Soppeng Regency (Ansyar & B, 2020), and Pangkajene and Islands Regency (Ahmad et al., 2023), indicate that public education is still needed so that communities can develop practical skills in measuring the Qibla direction.

One of the community service locations conducted by the authors’ Community Service Team was Takalar Regency, which is located in the southern part of South Sulawesi and has a predominantly Muslim population. However, not all members of the community have adequate access to accurate supporting instruments or a comprehensive understanding of how to determine the Qibla direction. Several mosques, houses of worship, and cemeteries in this area may still rely on traditional methods, such as intuition, manual calculations, or the use of a compass merely to indicate the west as a reference point for the Qibla direction, which is not always accurate. This condition may affect the quality of worship and raise concerns among Muslims regarding the validity of their prayers. In addition, the role of technology in daily life has developed rapidly, and many modern applications are now available to assist in determining the Qibla direction. Nevertheless, not everyone in this area knows how to use such technology optimally. This situation indicates a gap in knowledge and access to technology that can support religious worship.

Based on this background, the authors' team initiated a community service program as an effort to empower and train the community in measuring the Qibla direction. The proposed community service program was entitled "Qibla Direction Training for the Wider Muslim Community of South Galesong District, Takalar Regency." The phrase "Qibla direction for the wider Muslim community" refers to the direction faced in worship, namely toward the House of God, which serves as the direction of prayer for all Muslims throughout the world. Specifically, the partner in this activity was the Commissariat Leadership of the Muhammadiyah Student Association Galesong, Takalar Regency.

Data and Methodology

The community service program "Qibla Direction Measurement Training for the People of South Galesong District, Takalar Regency" is implemented through several systematic stages to optimally achieve the activity's objectives. The implementation method consists of:

1. Preparation Stage
    a. Coordination with Partners: The proposal team coordinates with partners (Pikom IMM Galesong, Takalar Regency) to establish the schedule, location, and technical details for the activity.
    b. Material Preparation: Prepares training modules covering the introduction of Qibla direction, simple astronomical theory, and the use of modern measuring instruments (compass, Istiwa'aini, GPS-based applications).
    c. Procurement of Tools and Equipment: Provides measuring instruments to be used during the practical work, such as a standard compass, Istiwa'aini, and smartphones with the Find Qibla application.
2. Socialization and Outreach Stage
    a. Seminar & Discussion Activities: Conducts outreach on the importance of Qibla direction in worship and funerals, supplemented by simple scientific studies on the principles of Islamic astronomy.
    b. Methods Used: Interactive lectures, group discussions, and question-and-answer sessions.
    c. Target: Increased public awareness and understanding (especially mosque and prayer room administrators, and gravediggers) of the importance of accurate Qibla direction.
3. Instrument Use Practical Stage
    a. Technical Training: Participants are given hands-on training on how to use Qibla direction measuring instruments (compass, Istiwa'aini, and digital applications).
    b. Field Practice: Participants are involved in measuring the Qibla direction at a real-life location (mosque or prayer room) to practice the skills they have learned.
    c. Mentoring: The proposing team assists participants until they are able to operate the instruments independently.
4. Qibla Direction Calibration Stage
    a. Site Survey: Checking the Qibla direction at designated mosques, cemeteries, and religious tourist sites.
    b. Field Calibration: Using modern instruments to re-measure the Qibla direction and make corrections if any discrepancies are found.
    c. Documentation and Publication: Calibration results are documented in the form of a report and submitted to the managers of places of worship and the community.

5. Evaluation and Follow-up Stage
    a. Evaluation of Participant Understanding: Pre- and post-tests are conducted to measure improvements in participants' knowledge and skills.
    b. Feedback: Gathering suggestions and input from participants regarding activity implementation.
    c. Program Sustainability: Developing recommendations and providing ongoing support so that the community can continue to practice the skills acquired.
6. Partner Role

The training program is implemented in collaboration with the Muhammadiyah Student Association (IMM) Galesong Commissariat Leadership Committee (Pikom) in Takalar Regency. The partner's role in the training is to coordinate the timing and location of the event, participant mobility, and assist with coordination with local village government officials, while also acting as a training participant.

Results and Discussion

Overview of the Activity

The Community Service Team conducted training on measuring the Qibla direction of mosques and cemeteries for community representatives from various village stakeholders, including village and district officials, religious leaders, and youth leaders. This activity was carried out in collaboration with the Commissariat Leadership of the Muhammadiyah Student Association Galesong in South Galesong District, Takalar Regency. The activity also aimed to increase public awareness of the importance of accuracy in determining the Qibla direction. The training did not only cover the use of Qibla direction measurement tools, such as compasses and Global Positioning System-based applications, but also provided knowledge of the scientific principles underlying Qibla direction determination, enabling the community to understand how the tools they use actually work.

The objectives of implementing the Qibla direction measurement training for both places of worship and cemeteries are as follows.

1. Improving Community Knowledge: Providing a deeper understanding of the importance of an accurate Qibla direction and its role in the validity of worship.
2. Teaching Proper Measurement Methods: Introducing various methods that can be used to determine the Qibla direction accurately, both manually using a compass and technologically using smartphone-based applications and Global Positioning System devices.
3. Encouraging the Use of Technology: Equipping the community with skills in using modern technology to facilitate the determination of the Qibla direction, in line with current developments and technological advancement.
4. Empowering the Community: Providing practical skills that can be used independently at home or in mosques, thereby reducing dependence on external parties.
5. Improving the Quality of Worship: Enhancing the quality of Muslim worship in Takalar Regency by

ensuring that people can perform prayer correctly in accordance with Islamic law.

Figure 1. Coordination with the South Galesong District Authorities

Figure 1 shows the coordination agenda conducted by the Community Service Team of the Faculty of Islamic Studies together with stakeholders from South Galesong District. The meeting discussed the implementation permit and the concept of the activities to be carried out. The district stakeholders acknowledged their limited knowledge regarding the instruments used in measuring the Qibla direction. Therefore, they expressed strong expectations that this activity would be able to educate the community. Several activities implemented in this program are presented in the following discussion.

Socialization and Counseling on the Urgency of Qibla Direction

The initial stage of the community service activity was carried out through socialization and counseling on the urgency of Qibla direction for the community. This material was presented as an introduction to help participants understand that facing the Qibla is one of the essential requirements in performing prayer. Therefore, the accuracy of the Qibla direction is not merely related to technical aspects, but also holds significant religious value for Muslims.

In this counseling activity, the community was given an understanding that determining the Qibla direction should not be based solely on estimation, inherited customs, or the orientation of existing buildings. In practice, some members of the community were still found to lack knowledge of the proper methods for determining the Qibla direction. Through this activity, participants were encouraged to understand the importance of checking and measuring the Qibla direction in mosques, prayer rooms, homes, and cemeteries.

This socialization activity also served as a forum for dialogue between the implementation team and the community. Participants were given the opportunity to share their experiences, questions, and challenges related to the Qibla direction. Thus, the counseling activity was not conducted in a one-way manner, but also opened space for community participation in gaining a deeper understanding of issues related to the Qibla direction.

Figure 2. Counseling on the Urgency and Theory of Qibla Direction Measurement

Figure 3. Presentation of Qibla Direction Material

This figure shows the presentation of material delivered by the Community Service Team to participants in the Qibla direction measurement training. In this session, participants were provided with an understanding of the urgency of Qibla direction accuracy in the performance of prayer and the burial of the deceased. The material presented included the basic principles of determining the Qibla direction, the importance of measurement accuracy, and an introduction to supporting tools such as compasses, Global Positioning System-based applications, and simple instruments that can be used independently by the community.

Practical Training on the Use of Qibla Direction Instruments

After participants gained a basic understanding of the importance of the Qibla direction, the activity continued with practical training on the use of Qibla direction instruments. This stage aimed to equip the community with practical skills in determining the Qibla direction using simple and easily accessible tools.

During the practical session, participants were introduced to several instruments or media that can be used to determine the Qibla direction, such as compasses, Qibla direction applications, and methods involving observation of the sun's position or shadows. The implementation team explained how these instruments work, the steps for using them, and the aspects that need to be considered in order to obtain more accurate measurement results.

This practical training was an important part of the activity because participants did not only receive theoretical material, but were also directly involved in the measurement process. The community was given the opportunity to try using Qibla direction instruments under the guidance of the implementation team. Through this hands-on practice, participants were able to understand that determining the Qibla direction requires accuracy, methodological understanding, and the proper use of instruments.

The practical activity also provided a new experience for the community, especially for participants who had never previously used instruments for determining the Qibla direction. Through this training, the community is expected to be able to check the Qibla direction independently in their daily lives.

Figure 3. Training on the Use of Istiwa'aini, Compass, and the Masa Application

Figure 4 shows the practical activity of using supporting tools in Qibla direction measurement. Participants were trained to use both simple and technology-based instruments, such as compasses and Global Positioning System-based Qibla direction applications. This practical session was intended not only to help participants understand the concept theoretically, but also to enable them to apply the measurement procedures independently. This activity became an important part of improving the community's technical skills in determining the Qibla direction more accurately.

Qibla Direction Calibration in Mosques and Cemeteries

Figure 4. Assistance in Measuring and Calibrating the Qibla Direction of Mosques in South Galesong District

Figure 5. Assistance in Measuring and Calibrating the Qibla Direction of Cemeteries in South Galesong District

Figures 4 and 5 show the process of assisting Qibla direction measurement directly at the activity site. The implementation team, together with the participants, conducted checks and calibration of the Qibla direction at places of worship or areas designated as measurement objects. This field activity provided participants with practical experience in comparing the Qibla direction that had been used previously with more accurate measurement results. Through this assistance, the community is expected to be able to apply Qibla direction measurement skills sustainably within their respective environments.

The next stage was the calibration of the Qibla direction in mosques and cemeteries. This activity served as a direct application of the material and practical training that had been provided earlier. Calibration was carried out to determine the conformity between the Qibla direction that had been used and the results obtained through more systematic instruments or methods.

Qibla direction calibration in mosques is highly important because mosques serve as centers for congregational prayer in the community. The accuracy of the Qibla direction in mosques affects the comfort and confidence of worshippers in performing their prayers. Therefore, the calibration process was conducted carefully by considering the condition of the building, the position of the prayer rows, and the measurement results obtained.

In addition to mosques, this activity also included Qibla direction calibration in cemeteries. This is important because, in Islamic burial practices, the position of the deceased also takes the Qibla direction into account. Through Qibla direction checking in cemetery areas, the community gained an understanding that knowledge of the Qibla direction is not only required in prayer, but also in other religious aspects.

The implementation of this calibration activity received a positive response from the community. Community members were able to directly observe the process of measuring the Qibla direction and compare it with the direction that had been used previously. This activity also served as a form of practical education because the community was not only given explanations, but also witnessed the application of Islamic astronomy or Qibla direction determination in the context of daily life.

In general, the three stages of the activity were interconnected and formed a comprehensive training program. Socialization and counseling provided the community with a basic understanding of the importance of the Qibla direction. Practical training on the use of instruments equipped participants with technical skills. Meanwhile, Qibla direction calibration in mosques and cemeteries served as a direct application of the knowledge and skills that had been acquired.

Through this activity, the community not only understood the urgency of the Qibla direction theoretically, but also gained practical experience in checking and calibrating the Qibla direction. Thus, this community service activity made a tangible contribution to improving the community's religious understanding and technical skills, particularly in the aspect of determining the Qibla direction.

Based on the results of the Qibla direction training conducted by the community service team, involving several activity targets, including district and village government officials, religious leaders, and youth representatives from each village in South Galesong District, it can be concluded that the community's knowledge of Qibla direction science and technology remains limited. Therefore, training and calibration of the Qibla direction are needed in various places and facilities in the local area. The Qibla direction measurements carried out on samples of cemeteries and mosques found deviations of 15 to 26 degrees, which exceeded the actual tolerance limit for the Qibla direction.

Conclusion

The Qibla direction measurement training in South Galesong District, Takalar Regency, was implemented through socialization, practical use of measurement instruments, and calibration assistance in mosques and cemeteries. This activity improved the community's understanding of the importance of accurate Qibla direction in worship and burial practices, while also equipping participants with technical skills in using compasses, Istiwa'aini instruments, and smartphone-based Qibla direction applications.

The results of the assistance showed that the community's knowledge of Qibla direction measurement methods remained limited, indicating the need for continuous education and calibration. In the mosque and cemetery samples measured, deviations of 15 to 26 degrees from the proper Qibla direction were found. Therefore, Qibla direction correction has become an important need for religious facilities in the area. This activity received positive responses from the local government, religious leaders, youth leaders, and the community because it provided direct experience in comparing the Qibla direction previously used with more accurate measurement results.

Thus, this training contributed to improving the community's religious literacy and technical skills in determining the Qibla direction. In the future, similar assistance needs to be expanded to other villages, mosques, prayer rooms, and cemetery areas so that the community will be able to check and adjust the Qibla direction independently, accurately, and sustainably.

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